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**National Highway
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TRANSPORTATION RESEARCH CENTER

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Bloomington, Indiana 47403-1599

REMOTE AIR BAG REPORT

CASE NO. - 96-28
FLEET - PRIVATE VEHICLE
LOCATION -
ACCIDENT DATE -

Submitted By:

Associate Scientist
and

Associate Scientist

Revised Submission:

Contract Number:

Prepared for:

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National Center for Statistics and Analysis
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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

Technical Report Documentation Page

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15. Supplementary Notes Remote air bag deployment investigation involving a 1996 Nissan Maxima, 4-door sedan, with manual lap belt; automatic, motorized, shoulder belt; and driver's air bag					
16. Abstract This report covers a remote investigation of an air bag deployment crash that involved a 1994 Nissan Maxima and a 1990 Geo (NUMMI) Prizm. This crash is of special interest because the Maxima's driver sustained a lacerated aortic arch after being contacted by his deploying driver air bag. The Maxima was traveling south, entering a right-hand curve, in the southbound lane of a two-lane, undivided, state road. The Prizm was traveling north, in a left-hand curve, in the southbound lane of the same two-lane, undivided, state road. The crash occurred in the southbound lane of the roadway. The front right half of the Maxima (case vehicle) impacted the front right half of the Prizm (vehicle #2) causing the case vehicle's driver supplemental restraint system (air bag) to deploy. The case vehicle and vehicle #2 were both towed due to damage. The case vehicle rotated approximately 90 degrees clockwise after impact and came to rest at the approximate point of impact straddling the southbound lane heading west. Vehicle #2 rotated approximately 60 degrees clockwise after impact and came to rest on the grassy roadside approximately 5 meters (16 feet) west of the west road edge heading northeast. Because the case vehicle's driver (71-year-old male) was the sole occupant of the vehicle and subsequently expired, the driver's pre-crash posture, seat track location, and manual restraint usage are all unknown. In addition, it is unknown if the case vehicle was equipped with a tilt steering wheel. Based on the police photographs and the driver's medical records, the driver was using his available, passive, motorized, two-point, shoulder belt. He sustained, according to his medical records, a fatal laceration to his aortic arch and soft tissue injuries, which included a laceration to his left forehead, a contused left upper chest, and abrasions over his left clavicle and right knee. The clavicle and knee abrasions resulted from loading his passive belt and the left dash, respectively. The forehead laceration most likely came from striking the left window frame, and the fatal aortic laceration and left upper chest contusion resulted from loading the deploying air bag and passive belt.					
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TRC/IU REMOTE AIR BAG REPORT

TRC/IU CASE NO. 96-28

FLEET - PRIVATE VEHICLE
LOCATION -

SUMMARY

This report concerns a motor vehicle crash involving an air bag equipped 1994 Nissan Maxima and a 1990 Geo (NUMMI) Prizm occurring in 1996 at 3:20 p.m., in a rural area on a state road. This crash is of special interest because the Maxima's driver sustained a lacerated aortic arch after being contacted by his deploying driver air bag.

The Maxima was traveling south, entering a right-hand curve, in the southbound lane of a two-lane, undivided, state road when it impacted the Prizm which was traveling north, in a left-hand curve, in the southbound lane of the same two-lane, undivided, state road. The crash occurred in the southbound lane of the roadway. The Maxima rotated approximately 90 degrees clockwise after impact and came to rest at the approximate point of impact straddling the southbound lane heading west. The Prizm rotated approximately 60 degrees clockwise after impact and came to rest on the grassy roadside approximately 5 meters (16 feet) west of the west road edge heading northeast.

The front right half of the Maxima impacted the front right half of Prizm. The Maxima and the Prizm were both towed due to damage. The CDCs are estimated as: **12-FZEW-2 (-10)** for the Maxima and **12-FZEW-4 (+10)** for the Prizm. The WinSMASH reconstruction program, damage only algorithm (based on CDCs only since no actual vehicular crush measurements were obtained), was used on the highest severity impact to the Maxima. The Total, Longitudinal, and Lateral Delta Vs are respectively: **33.8 km.p.h. (21.0 m.p.h.)**, **-33.3 km.p.h. (-20.7 m.p.h.)**, and **+5.9 km.p.h. (+3.7 m.p.h.)**.

The 1994 Nissan Maxima was equipped with a driver supplemental restraint system (air bag) which deployed as a result of the frontal impact. Because the Maxima's driver (71-year-old male) was the sole occupant of the vehicle and subsequently expired, the driver's pre-crash posture, seat track location, and manual restraint usage are all unknown. In addition, it is unknown if the Maxima was equipped with a tilt steering wheel. Based on the police photographs and the driver's medical records, the driver was using his available, passive, motorized, two-point, shoulder belt. He sustained, according to his medical records, a fatal laceration to his aortic arch and soft tissue injuries, which included a laceration to his left forehead, a contused left upper chest, and abrasions over his left clavicle and right knee. The clavicle and knee abrasions resulted from loading his passive belt and the left dash, respectively. The forehead laceration most likely came from striking the left window frame, and the fatal aortic laceration and left upper chest contusion resulted from loading the deploying air bag and passive belt.

TRC/IU REMOTE AIR BAG REPORT

TRC/IU CASE NO. 96-28

FLEET - PRIVATE VEHICLE
LOCATION -

CRASH DATA

Location/Street:	State Road
State:	
Area/Type:	Rural, undeveloped
Crash Date/Time:	@ 3:20 p.m.
Investigating Police Agency:	State Police Department
Crash Type:	Vehicle / Vehicle - head-on
Occupant Injury Severity (air bag vehicle):	Laceration {tear} aorta (AIS-5)

AMBIENT CONDITIONS

Light Conditions:	Daylight
Weather Condition:	Overcast
Precipitation:	Rain
Road Surface:	Wet
Temperature:	17 degrees C (63 degrees F) @

ROADWAY

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Location:	State road	State road
Number of Travel Lanes:	Two-lanes, undivided	Two-lanes, undivided
Width:	3.6 meters (11.7 feet)	3.6 meters (11.7 feet)
Surface Type:	Asphalt	Asphalt
Vertical alignment:	Level (approaching positive grade)	Level (leaving negative grade)
Horizontal alignment:	Right-hand curve	Left-hand curve

ROADWAY (CONTINUED)

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Traffic Density:	Moderate	Moderate
Speed Limit:	56 km.p.h. (35 m.p.h.)	56 km.p.h. (35 m.p.h.)
Traffic Controls:	Double solid yellow center lines, solid white edge lines on east and west road edges	Warning ← sign (curve), double solid yellow center lines, solid white edge lines on east and west road edges

VEHICLES

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Year:	1994	1990
Make:	Nissan	Geo (NUMMI)
Model:	Maxima	Prizm
Body Type:	Four-door sedan	Four-door sedan
V.I.N.:	JN1HJ01F9RT-----	1Y1SK5162LZ-----
Mileage:	86,768 km (53,915 m) per Police Crash Report	155,434 km (96,582 m) per Police Crash Report
Windshield damage/source:	Cracked from impact forces per photographs	Cracked from impact forces per photographs
Active Restraints:	Two-point, lap belt in front outboard seating positions; three-point lap and shoulder belts in back outboard seating positions, and lap belt only at back center position	Three-point, lap and shoulder belts in front outboard seating positions; lap belt only at back center position; unknown belts in back outboard positions
Passive Restraints:	Two-point, motorized, shoulder belts in front outboard seating positions, and factory installed driver supplemental restraint system (air bag)	None per photographs
Anti-lock brakes:	Option, unknown if equipped	Unknown if option available
Fleet:	Private vehicle	Private vehicle
Tow status:	Towed due to damage	Towed due to damage

VEHICLES (CONTINUED)

Reported Defects:	Unknown	Unknown
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VEHICLE DAMAGE

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
<u>DEPLOYMENT IMPACT</u>		
Event number:	First	First
Object struck:	Vehicle #2	Case Vehicle
Damage location:	Front	Front
CDC:	12-FZEW-2 (-10)	12-FZEW-4 (+10)
Estimated maximum crush:	25 cm (9.8 in)	80 cm (31.5 in)
Damaged components:	Front bumper, grille, and hood; right front headlight and wheel assemblies; right and left fenders; and windshield	Front bumper, grille, hood; right front door and headlight and wheel assemblies; right fender and roof; and windshield
Repair estimate:	Unknown	Unknown
Interior damage:	Driver air bag module	Unknown

VEHICLE VELOCITY ESTIMATES^{1,2}

<u>Highest Delta "V"</u>	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Reconstruction Program:	WinSMASH	WinSMASH
Program Algorithm:	Damage only (i.e., CDC)	Damage only (i.e., CDC)
Travel Speed ¹ :	56 km.p.h. (35 m.p.h.)	64 km.p.h. (40 m.p.h.)
Total ² Delta "V":	34 km.p.h. (21 m.p.h.)	46 km.p.h. (29 m.p.h.)
Longitudinal ² Delta "V":	-33 km.p.h. (-21 m.p.h.)	-46 km.p.h. (-28 m.p.h.)
Lateral ² Delta "V":	+6 km.p.h. (+4 m.p.h.)	-8 km.p.h. (-5 m.p.h.)

¹ These speed estimates are based on the Police Crash Reported speed limit and witness statements (i.e., the best available evidence indicates that vehicle #2 was traveling faster than the case vehicle). For additional discussion, see the page entitled: **TRC VECTOR ANALYSIS ITERATIONS**.

² In this contractor's experience, these delta V estimates are too high.

COLLISION SEQUENCE

PRE-CRASH: According to the Police Crash Report, the case vehicle (Maxima) was traveling south, entering a right-hand curve, in the southbound lane of a two-lane, undivided, state road and was attempting to continue in its southward direction of travel. According to the Police Crash Report, vehicle #2 (Prizm) was traveling north, in a left-hand curve, in the southbound lane of the same two-lane, undivided, state road. According to the statement on the Police Crash Report given by vehicle #2's driver, he had successfully maneuvered to avoid an oncoming, noncontact vehicle in his northbound lane (i.e., by steering left into the southbound lane) but had not yet returned³ to his proper lane. According to the crash and final rest positions of the two vehicles which are shown in the available photographs (see **SELECTED PHOTOGRAPHS #02 through #05, #07, #09, #12, #13, and #16**), upon recognizing the impending collision, both drivers steered left. Based on the available photographic evidence, the case vehicle continued essentially straight ahead prior to impact and vehicle #2 swerved leftward while continuing ahead prior to impact. The crash occurred in the southbound lane of the roadway.

CRASH: According to the available photographs, the front right half of the case vehicle impacted the front right half of vehicle #2 causing the driver supplemental restraint system (air bag) to deploy. The case vehicle rotated approximately 90 degrees clockwise after impact and came to rest at the approximate point of impact⁴ straddling the southbound lane heading west. Vehicle #2 rotated approximately 60 degrees clockwise after impact and came to rest on the grassy roadside approximately 5 meters⁵ (16 feet) west of the west road edge heading northeast.

DRIVER/OCCUPANT DATA

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Age:	71-year-old	18-year-old
Sex:	Male	Male
Height:	183 cm (72 in)	Unknown
Weight:	80 kg (176 lbs)	Unknown
Occupation:	Retired per interviewee	Unknown
Active Restraint System/Usage:	Two-point lap belt/Usage is unknown	Three-point lap and shoulder/Used

³ This description indicates a successful avoidance maneuver to a prior critical event.

⁴ This estimate is based on the debris shown on the Police Crash Report.

⁵ This estimate is based on the police reported tire positions of the two vehicles.

DRIVER/OCCUPANT DATA (CONTINUED)

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Usage Source:	None available	Rescue squad per Police Crash Report
Passive Restraint System/Usage:	Two-point, motorized, shoulder belt/Used; driver air bag/Air bag deployed	Not equipped
Usage Source:	Motorized shoulder belt: vehicle photographs; Driver air bag: vehicle photographs, interviewee, medical records, and Police Crash Report	Not applicable
Eyeglasses/contacts:	Eyeglasses per medical records	Eyeglasses per Police Crash Report
Vehicle Familiarity:	Unknown	Unknown
Route Familiarity:	Unknown	Unknown
Trip Plan:	Recreation (country club) to unknown	Unknown to social (i.e., pickup a friend)
Manner of Leaving Scene:	Ambulance	Ambulance
Type of Medical Treatment:	Hospitalized and subsequently died approximately 8 hours post-crash	Transported, unknown treatment
Blood Alcohol Level:	.02 (19 mg/dl)	Not tested

CASE VEHICLE DRIVER INJURIES

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Laceration {tear} on aortic arch between left common carotid artery and right innominate (brachiocephalic ⁶ , See next page) artery with bleeding confined to the mediastinum and bilateral hemothoraces	420216.5,4	2	Air bag, driver's ⁷ , See next page	{Probable}
Laceration, two centimeters, left forehead over eyebrow	290602.1,7	2	Left side window frame	{Probable}
Contusion left upper chest	490402.1,2	2	Air bag, driver's ⁷ , See next page	{Probable}

CASE VEHICLE DRIVER INJURIES^{6,7} (CONTINUED)

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Abrasion over left clavicular area	790202.1,2	3	Passive seat belt restraint webbing	{Certain}
Abrasion, small, right knee	890202.1,1	3	Left dash below instrument panel	{Probable}

DISCUSSION

Because the case vehicle's driver was the sole occupant of the vehicle and subsequently expired, the driver's pre-crash posture, seat track location, and manual restraint usage are all unknown. In addition, it is unknown if the case vehicle was equipped with a tilt steering wheel. According to the available police photographs⁸, the driver was using his two-point, motorized, shoulder belt.

According to the Police Crash Report and the available photographs, the case vehicle's driver steered to the left attempting to avoid the crash. As a result of this attempted avoidance maneuver and the use of his available, passive, shoulder belt, he most likely moved slightly to his right just prior to impact.

Based on the Police Crash Report and occupant kinematic principles, the case vehicle's impact with vehicle #2, not only deployed the driver's air bag, but thrust the driver forward and upward loading his motorized, shoulder belt prior to his encountering the deploying air bag. If the case vehicle's driver was not using his available, manual, lap belt, then based on occupant kinematic principles he would have "*submarined*" forward with his hips and legs. During the impact, the case vehicle rotated approximately 90 degrees clockwise causing the driver to experience a substantial counterclockwise torque and sending him to the left with respect to his rotating vehicle. The torque forces contributed strongly to the overall severity of the driver's experience because they caused a reversal of the driver's rightward motion.

According to the driver's medical records, the case vehicle's driver exited his vehicle under his own power⁹, took a step, and then collapsed. He was transported to a local hospital where the tear near the top of the aortic arch was diagnosed via angiogram. He was transferred to a trauma hospital via helicopter, where surgery to repair the torn aorta was not successful. The

⁶ The anatomical structure of this driver's aorta arch was anomalous. Normally the brachiocephalic artery goes upward from the arch and splits into the right subclavian artery and the right common carotid artery. However, for this driver there was no brachiocephalic artery in that both the right subclavian (first) and the right common carotid (second) arteries ascending directly from the arch itself. The laceration of the arch occurred between the right common carotid artery and the left common carotid artery.

⁷ Both the case vehicle's driver air bag and two-point, motorized, shoulder belt contributed to the chest compression which caused the aortic arch laceration.

⁸ See **SELECTED PHOTOGRAPHS #09** and **#11** which show that the motorized shoulder belt was not disconnected.

⁹ Photographs of the case vehicle (see **SELECTED PHOTOGRAPHS #11**) indicate that the driver's door and motorized shoulder belt assembly were not damaged; therefore, he probably just opened his door and got out of his vehicle in the normal manner.

DISCUSSION (CONTINUED)

case vehicle's driver was pronounced dead on the operating table approximately eight hours post-crash.

Radiographic and the surgeon's operative report indicate that the victim had a congenital malformation¹⁰ of the blood vessels near the heart, including anomalous architecture and a convoluted path through the thorax. The operative report describes the tissue of the aorta as "*friable*"¹¹, such that sutures to repair the tear would not hold. The victim had suffered a slight stroke approximately four months prior to the crash. It is apparent that the case vehicle's driver had significant pre-existing anatomical and medical problems that contributed to the fatal outcome.

The following material is taken from the book:

The heart is suspended in the pericardial sac by the aorta, pulmonary artery, and superior vena cava. Any force that violently compresses the anterior chest and forces the heart downward may exert sufficient traction on the aorta to tear it transversely. The superior vena cava and the pulmonary artery are rarely torn. Aortic lacerations are most commonly seen in automobile accidents, less commonly in falls. In automobile accidents, the victim, usually the driver sustains the injury when the chest forcibly strikes the steering wheels, and the front seat passenger when the chest strikes the dashboard. Aortic lacerations may also occur in side impact crashes.

Bursting rupture of the ascending portion and arch of the aorta occur when a violent force compresses the heart and intrapericardial portion of the ascending aorta, producing a sudden rise in intracardiac and intraluminal pressure which results in a transverse tear of the aorta immediately above the cusps of the aortic valve. This usually involves

¹⁰ Specifically, the operative summary indicated that: "The patient had an anomalous aortic arch with a long uncoiled ectatic ascending aorta which gave branches of the right and right *{common}* carotid and right subclavian separately from the aortic arch. The aorta then appeared to move towards the left and give separate origins of the left *{common}* carotid and left subclavian vessels. It then descended and took a tortuous course throughout the chest." Note: the standard architecture involves a right brachiocephalic artery branching from the arch and then splitting into the right common carotid artery and the right subclavian artery. In addition, the physician noted: "The patient seems to have some congenital anomaly with a double aortic arch with an atretic anterior segment. The posterior segment, however, was persistent and passed retrotracheal and retroesophageally." In a normal architecture the descending aorta passes anteriorly to the trachea and esophagus.

The following terms are defined in _____

atresia (*a-tre'zha*) - congenital absence or closure of a normal body orifice or tubular organ; *aortic atresia* - absence or closure of the aortic root orifice, a rare congenital anomaly in which the left ventricle is hypoplastic, oxygenated blood passing from the left into the right atrium through a septal defect, and the mixed venous and arterial blood passing from the pulmonary artery to the aorta by way of a patent ductus.

atretic (*a-tret'ik*) - without an opening; pertaining to or characterized by atresia.

ectatic (*ek-tat'ik*) - distended or stretched; distensible.

tortuous (*tor'choo-as*) - twisted; full of turns and twists.

¹¹ The following term is defined in _____

friable (*fri'a-bal*) - easily pulverized or crumbled.

DISCUSSION (CONTINUED)

only a portion of the aorta's circumference. Death rapidly ensues from severe hemorrhage. These injuries are associated with fractures of the upper ribs and sternum.

Most traumatic injuries of the aorta involve the descending portion just distal to the origin of the left subclavian artery. The arch of the aorta is anchored by the great vessels arising from the aortic arch, that is, the right innominate¹², left common carotid, and subclavian arteries, and the ligamentum arteriosum¹³ (which connects the left pulmonary artery to the arch of the aorta). Partial or complete lacerations of the descending aorta occur at almost precisely the same location: immediately distal to the left subclavian artery, at the junction of the aortic arch and the descending aorta. The precise mechanism of this injury is not known. The relatively constant location of aortic lacerations, the relative fixation of the descending aorta just below the aortic isthmus¹⁴, the relative fixation of the aortic arch by the vessels, and the constant association of the aortic laceration with deceleration injuries¹⁵, such as automobile collisions, suggest that the abrupt deceleration of the body and resulting forceful compression of the anterior chest and underlying mediastinal structures causes the heart and great vessels to be jerked away from the posterior chest wall to which the thoracic aorta is attached. This traction on the ligament ductus arteriosus and descending aorta at its point of fixation is sufficient to lacerate the aorta immediately below the origin of the left subclavian artery.

In summary, the case vehicle's driver was an older gentleman, with anomalous aortic architecture, who experienced both belt loading forces and an air bag impact to his thorax, plus violent torque forces from the rapid clockwise rotation. Based on the available evidence, the impact with the air bag contributed to the laceration to the deteriorated tissue of his aortic arch. He received prompt medical attention and was triaged to an appropriate facility in a timely manner. His pre-existing anatomical and medical problems prevented successful intervention. A more robust individual could have survived this crash.

¹² Also called the brachiocephalic artery.

¹³ The following term is defined in _____
ligamenta arterio/sum -- a short, thick, strong fibromuscular cord extending from the pulmonary artery to the arch of the aorta; it is the remains of the ductus arteriosus. Called also *ligament of Botallo*.

¹⁴ The following terms are defined in _____
isthmus (is/mas) -- a narrow connection between two larger bodies or parts; a general term for such a connecting structure or region. **isthmus of aorta** -- a narrow portion of the aorta, especially noticeable in the fetus, at the point where the ductus arteriosus is attached.

¹⁵ The following term is defined in _____
deceleration injury -- an injury sustained by sudden deceleration in the movement of the body, as in a motor vehicle accident; the brain is especially liable to such trauma.

Appendix A:

RECONSTRUCTION PROGRAM RESULTS:

**WINSMASH
(DAMAGE ONLY ALGORITHM)**

TRC VECTOR ANALYSIS ITERATIONS

WINSMASH
(DAMAGE ONLY ALGORITHM
-- INCLUDING
BARRIER EQUIVALENT SPEEDS)

T0071



U.S. Department of Transportation
National Highway Traffic Safety
Administration

SMASH PROGRAM SUMMARY

(All Measurements in Metric)

BEST AVAILABLE

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Identifying Title

10

Primary
Sampling Unit

9628

Case No.-Stratum

01

Accident Event
Sequence No.

1 1

Date (Month, day, year) of Run

GENERAL INFORMATION

VEHICLE 1

NASS Vehicle Number

01

Year

1994

Make

NISSAN

Model

MAXIMA

Body Style

4D

CDC

12 FZ EW2

PDOF

10°

Heading Angle

170°

VEHICLE 2

NASS Vehicle Number

02

Year

1990

Make

NUMMI - GEO

Model

Prizm

Body Style

4D

CDC

12 FZ EW4

PDOF

10°

Heading Angle

340°

VEHICLE SPECIFICATIONS

VEHICLE 1

Wheelbase 104.3"

265 cm

Overall Length 187.6"

477 cm

Overall Width 69.3"

176 cm

Weight

1462 + 80 + 0 = 1542 kg

Curb Occupant(s) Cargo

3224
Engine Displacement

3.0 L

Drive System

FWD

Size

3

Stiffness

3

VEHICLE 2

Wheelbase 95.7"

243 cm

Overall Length 170.7"

434 cm

Overall Width 65.2"

166 cm

Weight

1053 + 70 + 0 = 1123 kg

Curb Occupant(s) Cargo

2321 #
Engine Displacement

1.6 L

Drive System

FWD

Size

2

Stiffness

2

DAMAGE INFORMATION

VEHICLE 1

EST. FROM PHOTOS

Damage Known?

Damage Length VEW ≈

150 cm

Damage Offset

25 cm

Crush Depth:

C1 _____ cm

C2 _____ cm

C3 _____ cm

C4 _____ cm

C5 _____ cm

C6 _____ cm

Field L D

+14

VEHICLE 2

Damage Known?

Damage Length UEW ≈

135 cm

Damage Offset

35 cm

Crush Depth:

C1 _____ cm

C2 _____ cm

C3 _____ cm

C4 _____ cm

C5 _____ cm

C6 _____ cm

Field L D

+12

SCENE INFORMATIONRest and Impact Positions ☐ No ☒ Yes

VEHICLE 1

Rest X _____ m
 Position Y _____ m
 Heading Angle _____ °
 Impact X _____ m
 Position Y _____ m
 Heading Angle _____ °
 Slip Angle (-180 to +180) _____ °

VEHICLE 2

Rest X _____ m
 Position Y _____ m
 Heading Angle _____ °
 Impact X _____ m
 Position Y _____ m
 Heading Angle _____ °
 Slip Angle (-180 to +180) _____ °

VEHICLE MOTIONSustained Contact ☐ No ☒ Yes

VEHICLE 1

Vehicle Rotation ☐ No ☒ Yes
 Rotation Stop Before Rest ☐ No ☐ Yes
 End of Rotation X _____ m
 Position Y _____ m
 Heading Angle _____ °

Curved Path ☐ No ☒ Yes

Point on Path

X _____ m Y _____ m

Rotation Direction ☐ None ☐ CW ☐ CCWRotation > 360° ☐ No ☐ YesSustained Contact ☐ No ☒ Yes

VEHICLE 2

Vehicle Rotation ☐ No ☒ Yes
 Rotation Stop Before Rest ☐ No ☐ Yes
 End of Rotation X _____ m
 Position Y _____ m
 Heading Angle _____ °

Curved Path ☐ No ☒ Yes

Point on Path

X _____ m Y _____ m

Rotation Direction ☐ None ☐ CW ☐ CCWRotation > 360° ☐ No ☐ Yes**FRICTION INFORMATION**

Coefficient of Friction _____

Rolling Resistance Option _____

1

Vehicle 1 Rolling Resistance

LF _____
 RF _____
 LR _____
 RR _____

Vehicle 2 Rolling Resistance

LF _____
 RF _____
 LR _____
 RR _____

IF THIS COMMON IMPACT WAS WITH A CDS VEHICLE NOT IN TRANSPORT, FILL IN THE INFORMATION BELOW.

Model Year: _____

Make: _____

Model: _____

VIN: _____

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

**Complete and ATTACH the appropriate
 damage sketch and dimensions to the form.**

General Information

TRC/IU Case Number 96-28

	<u>Vehicle 1</u>	<u>Vehicle 2</u>
Year:	1994	1990
Make:	Nissan	Geo
Model:	Maxima	Prizm
Body Style:	4S	4S
CDC:	12FZEW2	12FZEW4
Damaged Side:	Front	Front
PDOF:	-10°	10°
Heading Angle:	170°	335°

Vehicle Information

	<u>Vehicle 1</u>	<u>Vehicle 2</u>
Wheelbase:	265.0 cm	243.0 cm
Length:	477.0 cm	434.0 cm
Width:	176.0 cm	166.0 cm
Weight:	1542.0 kg	1123.0 kg
Center of Gravity:	228.1 cm	211.6 cm
Radius of Gyration:	143.1 cm	130.2 cm
D0:	102.2 sqrt(N)	99.2 sqrt(N)
D1:	7.3 sqrt(N)/cm	6.5 sqrt(N)/cm
Size Category:	3	2
Stiffness Category:	3	9

Vehicle 1: Used d0 and d1 values estimated from the vehicle size.

Vehicle 2: Used d0 and d1 values estimated from the vehicle size.

TRC/IU Case Number 96-28

WinSMASH 1. 2. 1

Damage Information

	<u>Vehicle 1</u>	<u>Vehicle 2</u>
Damage Length:	150.0 cm	135.0 cm
Damage Offset:	14.0 cm	12.0 cm
Field L - D:	25.0 cm	35.0 cm
C1:	0.0 cm	0.0 cm
C2:	21.4 cm	46.3 cm
C3:	21.4 cm	46.3 cm
C4:	42.8 cm	92.6 cm
C5:		
C6:		

Summary of Results Using Damage

Vehicle 1

	Speed Change (Damage)	
Total:	33.8 km/h	(21.0 m.p.h.)
Longitudinal:	-33.3 km/h	(-20.7 m.p.h.)
Latitudinal:	5.9 km/h	(+ 3.7 m.p.h.)
PDOF:	-10°	
Energy Dissipated:	53,628 Joules	
Barrier Equivalent Speed:	27.5 km/h	(17.1 m.p.h.)
Moment Arm of Principle Force:	62.0 cm (CW)	
Change in Angular Velocity:	1.6 deg/seconds	

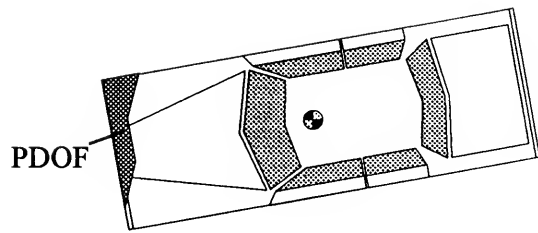
Used d0 and d1 values estimated from the vehicle size.

Vehicle 2

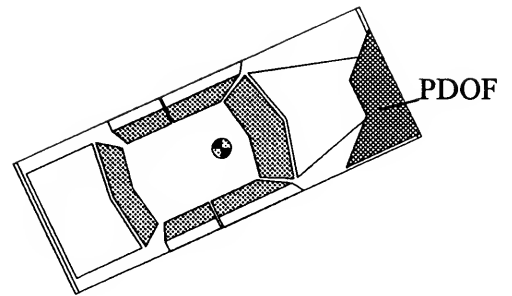
	Speed Change (Damage)	
Total:	46.4 km/h	(28.8 m.p.h.)
Longitudinal:	-45.7 km/h	(-28.4 m.p.h.)
Latitudinal:	-8.1 km/h	(- 5.0 m.p.h.)
PDOF:	10°	
Energy Dissipated:	120,717 Joules	
Barrier Equivalent Speed:	52.7 km/h	(32.7 m.p.h.)
Moment Arm of Principle Force:	2.6 cm (CW)	
Change in Angular Velocity:	0.1 deg/seconds	

Used d0 and d1 values estimated from the vehicle size.

Damage



1994 Nissan Maxima 4S



1990 Geo Prizm 4S

CASE NUMBER IN9628

MISSING DATA

THE FOLLOWING DATA ARE NOT INCLUDED IN THIS CASE:

PAGE NUMBER(S)

11-13

TRC VECTOR ANALYSIS ITERATIONS

The TRC Vector Analysis program was used to determine the resultant theoretical Direction of Principal Force for both vehicles. Heading angles were estimated from the Police Crash Report's scene diagram and weights were obtained from original specifications, the default NASS CDS occupant weights (vehicle #2), and medical records (case vehicle). Based on our review of the available police photographs of each vehicle, this contractor estimates the Direction of Principal Forces as -20 degrees for the case vehicle and +10 degrees for vehicle #2 (in accordance with NASS, CDS protocol).

According to the Police Crash Report, the posted SPEED LIMIT is 56 km.p.h. (35 m.p.h.). According to the available police photographs, both drivers (particularly the driver of vehicle #2) steered left just prior to the impact. The Police Crash Report does not indicate whether or not any avoidance maneuvers were taken or report the presence of pre-crash skid marks. Based on witness statements given to the police, vehicle #2 was traveling at a higher rate of speed than the case vehicle. Because of the crash environment including the reported wet road surface, witness statements, and the fact that no pre-impact skid marks were noted on the Police Crash Report, this contractor believes that the case vehicle was most likely traveling about 56 km.p.h. (35 m.p.h.) prior to impact. Vehicle #2 was most likely traveling 64 km.p.h. (40 m.p.h.) at the time of impact.

Ten iterations involving vehicle #2's heading angle and speed are presented below. Vehicle #2's heading angle was estimated as between 335-350 degrees with a constant heading angle of 170 degrees for the case vehicle. Vehicle speeds were estimated as approximately 56-72 km.p.h. (35-45 m.p.h.) for vehicle #2 and 56 km.p.h. (35 m.p.h.) for the case vehicle. The program indicates that as vehicle #2's speed increases, the force colinearity vector hardly changes (i.e., at most one degree counterclockwise). Of greater importance is vehicle #2's heading angle. The program indicates that as vehicle #2's heading angle changes from approximately 12 o'clock (350 degrees) to 11 o'clock (335 degrees), the force colinearity vector rotates from 0 degrees toward -7 degrees for the case vehicle while moving between 0 and +9 degrees for vehicle #2. Iteration eight most closely resembles the estimated Direction of Principal Forces. However, it must be kept in mind that this program considers the mass of each vehicle as a single point and, therefore, does not account for the offset nature of this collision. In accordance with NASS, CDS protocol, the Direction of Principal Forces were assigned at -10 for the case vehicle and +10 for vehicle #2.

POLICE CRASH REPORT

A UNIFORM TRAFFIC ACCIDENT REPORT

FATALITY

BEST AVAILABLE

SHEET 1 OF 5

PHOTOS TAKEN Δ YES NO
BY WHOM

Date of Accident M T W Th F S Sun 1 2 3 4 5 6 7		Time of Accident 1520 HRS		ACCIDENT REPORTED BY: 1 <input checked="" type="checkbox"/> State Police 3 <input type="checkbox"/> Sheriff 2 <input type="checkbox"/> City Police 4 <input type="checkbox"/> Other		Time of Notification 1536 HRS		Time of Arrival 1551 HRS	
COUNTY		CITY OR TOWN		HIGHWAY CLASSIFICATION 1 <input type="checkbox"/> Interstate 3 <input checked="" type="checkbox"/> WV 5 <input type="checkbox"/> City 2 <input type="checkbox"/> U.S. 4 <input type="checkbox"/> County 6 <input type="checkbox"/> Other					
ACCIDENT OCCURRED ON	ROUTE 1	STREET 1		CODE		IF ON CONTROLLED ACCESS HIGHWAY, CHECK ONE 1 <input type="checkbox"/> Main Road 2 <input type="checkbox"/> Main Road at Interchange 3 <input type="checkbox"/> Entrance Ramp On N S E W Side 4 <input type="checkbox"/> Exit Ramp On N S E W Side			
AT INTERSECTION WITH	ROUTE 2	STREET 2		CODE					
IF NOT AT INTERSECTION 200		<input checked="" type="checkbox"/> FEET <input type="checkbox"/> MILES		N X S E W		OF		STREET, HIGHWAY, TOWN ETC	
IF LOCATION CAN BE DESCRIBED MORE PRECISELY, ENTER HERE						MILEPOST		TOLERANCE	
SPECIAL REFERENCE:									

LOCATION

DRIVER 1

VEHICLE 1

DRIVER'S FULL NAME		ADDRESS		CITY		STATE	
DATE OF BIRTH		<input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE		DRIVER LICENSE NUMBER		STATE	
CITATION NUMBER (18)		Driving Left of Center		CITATION CHARGE		LICENSE RESTRICTIONS(S) VIOLATED None	
DRIVER CONDITION: 1 <input checked="" type="checkbox"/> Normal 2 <input type="checkbox"/> Sleepy 3 <input type="checkbox"/> Asleep 4 <input type="checkbox"/> Ill 5 <input type="checkbox"/> Other 6 <input type="checkbox"/> Unknown		TYPE SOBRIETY TEST GIVEN None		TEST RESULTS: DRINKING: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Test DRUGS: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Test		BAC	
DRIVER ACTION: 1 <input checked="" type="checkbox"/> Going Straight Ahead 2 <input type="checkbox"/> Turning Right 3 <input type="checkbox"/> Turning Left 4 <input type="checkbox"/> U - Turning 5 <input type="checkbox"/> Changing Lanes 6 <input type="checkbox"/> Passing 7 <input type="checkbox"/> Parking 8 <input type="checkbox"/> Parked 9 <input type="checkbox"/> Backing 10 <input type="checkbox"/> Merging 11 <input type="checkbox"/> Slowing or Stopping 12 <input type="checkbox"/> Stopped in Traffic Lane 13 <input type="checkbox"/> Entering or Leaving Driveway 14 <input type="checkbox"/> Pulling Out from Parking Space 15 <input type="checkbox"/> Other		OWNER'S FULL NAME <input type="checkbox"/> SAME AS DRIVER		ADDRESS		CITY	
YEAR 90		MAKE Chev.		MODEL Geo		STYLE Prism	
LICENSE PLATE NUMBER		STATE		YEAR 96		SERIAL NUMBER	
ODOMETER READING 96,582		DIRECTION TRAVEL (If turning, enter direction BEFORE turn.) N X S E W		ON ROUTE <input checked="" type="checkbox"/> 1 ABOVE (Or Street) <input type="checkbox"/> 2		CIRCLE POINT OF INITIAL IMPACT (Circle Only One)	
TOTAL OCCUPANTS OF THIS VEHICLE 1		AREA(S) DAMAGED (Use Codes at Far Right) 1, 2, 9		APPROXIMATE COST TO REPAIR \$ 5,000.00		<input checked="" type="checkbox"/> Total Loss	
AUTO LIABILITY INSURANCE YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		INSURANCE COMPANY					
CONTRIBUTING CIRCUMSTANCES (Check One or More) 1 <input type="checkbox"/> No Improper Driving 2 <input type="checkbox"/> Exceeding Speed Limit 3 <input type="checkbox"/> Exceeding Safe Speed 4 <input type="checkbox"/> Changing Lanes Improperly 5 <input type="checkbox"/> Following Too Closely 6 <input type="checkbox"/> Disregarded Traffic Control 7 <input type="checkbox"/> Did Not Have Right of Way 8 <input checked="" type="checkbox"/> Failure to Maintain Control 9 <input type="checkbox"/> Driving Under Minimum Speed 10 <input type="checkbox"/> No Signal or Improper Signal 11 <input type="checkbox"/> Turning Improperly 12 <input type="checkbox"/> Passing Improperly 13 <input type="checkbox"/> Parking Improperly 14 <input type="checkbox"/> Backing Improperly 15 <input type="checkbox"/> Avoiding Animal or Vehicle 16 <input type="checkbox"/> Distraction Inside Vehicle 17 <input type="checkbox"/> Walking Violation 18 <input type="checkbox"/> Driver Under Influence 19 <input type="checkbox"/> Pedestrian Under Influence 20 <input type="checkbox"/> Slippery Pavement 21 <input type="checkbox"/> Other Roadway Defects 22 <input type="checkbox"/> Previous Accident 23 <input type="checkbox"/> Mech. Defect Code Special Study No(s)						<div style="text-align: center;"> </div>	

VEHICLE TOWED TO:

DRIVER 2

VEHICLE 2

DRIVER'S FULL NAME		ADDRESS		CITY		STATE	
DATE OF BIRTH		<input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE		DRIVER LICENSE NUMBER		STATE	
CITATION NUMBER (71)		N/A		CITATION CHARGE		LICENSE RESTRICTIONS(S) VIOLATED None	
DRIVER CONDITION: 1 <input checked="" type="checkbox"/> Normal 2 <input type="checkbox"/> Sleepy 3 <input type="checkbox"/> Asleep 4 <input type="checkbox"/> Ill 5 <input type="checkbox"/> Other 6 <input type="checkbox"/> Unknown		TYPE SOBRIETY TEST GIVEN None		TEST RESULTS: DRINKING: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Test DRUGS: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Test		BAC	
DRIVER ACTION: 1 <input checked="" type="checkbox"/> Going Straight Ahead 2 <input type="checkbox"/> Turning Right 3 <input type="checkbox"/> Turning Left 4 <input type="checkbox"/> U - Turning 5 <input type="checkbox"/> Changing Lanes 6 <input type="checkbox"/> Passing 7 <input type="checkbox"/> Parking 8 <input type="checkbox"/> Parked 9 <input type="checkbox"/> Backing 10 <input type="checkbox"/> Merging 11 <input type="checkbox"/> Slowing or Stopping 12 <input type="checkbox"/> Stopped in Traffic Lane 13 <input type="checkbox"/> Entering or Leaving Driveway 14 <input type="checkbox"/> Pulling Out from Parking Space 15 <input type="checkbox"/> Other		OWNER'S FULL NAME <input checked="" type="checkbox"/> SAME AS DRIVER		ADDRESS		CITY	
YEAR 94		MAKE Nissan		MODEL Maxima		STYLE 4 Dr.	
LICENSE PLATE NUMBER		STATE		YEAR 97		SERIAL NUMBER	
ODOMETER READING 53,915		DIRECTION TRAVEL (If turning, enter direction BEFORE turn.) N S X E W		ON ROUTE <input checked="" type="checkbox"/> 1 ABOVE (Or Street) <input type="checkbox"/> 2		CIRCLE POINT OF INITIAL IMPACT (Circle Only One)	
TOTAL OCCUPANTS OF THIS VEHICLE 1		AREA(S) DAMAGED (Use Codes at Far Right) 1, 2		APPROXIMATE COST TO REPAIR \$ 4,000.00		<input checked="" type="checkbox"/> Total Loss	
AUTO LIABILITY INSURANCE YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		INSURANCE COMPANY					
CONTRIBUTING CIRCUMSTANCES (Check One or More) 1 <input checked="" type="checkbox"/> No Improper Driving 2 <input type="checkbox"/> Exceeding Speed Limit 3 <input type="checkbox"/> Exceeding Safe Speed 4 <input type="checkbox"/> Changing Lanes Improperly 5 <input type="checkbox"/> Following Too Closely 6 <input type="checkbox"/> Disregarded Traffic Control 7 <input type="checkbox"/> Did Not Have Right of Way 8 <input type="checkbox"/> Failure to Maintain Control 9 <input type="checkbox"/> Driving Under Minimum Speed 10 <input type="checkbox"/> No Signal or Improper Signal 11 <input type="checkbox"/> Turning Improperly 12 <input type="checkbox"/> Passing Improperly 13 <input type="checkbox"/> Parking Improperly 14 <input type="checkbox"/> Backing Improperly 15 <input type="checkbox"/> Avoiding Animal or Vehicle 16 <input type="checkbox"/> Distraction Inside Vehicle 17 <input type="checkbox"/> Walking Violation 18 <input type="checkbox"/> Driver Under Influence 19 <input type="checkbox"/> Pedestrian Under Influence 20 <input type="checkbox"/> Slippery Pavement 21 <input type="checkbox"/> Other Roadway Defects 22 <input type="checkbox"/> Previous Accident 23 <input type="checkbox"/> Mech. Defect Code Special Study No(s)						<div style="text-align: center;"> </div>	

VEHICLE TOWED TO:

D A M A G E	DAMAGED PROPERTY OTHER THAN VEHICLES <div style="border: 1px solid black; padding: 2px;">None</div>		<input type="checkbox"/> ON PAVEMENT OR _____ FEET <div style="border: 1px solid black; padding: 2px;">N S E W</div> OF PAVEMENT EDGE		Approx Damage <div style="border: 1px solid black; padding: 2px;">\$</div>	
	OWNER'S NAME		ADDRESS _____ CITY _____			
C O D E S	INJURY CLASSIFICATION K—Killed A—Bleeding Wound, Distorted Member, or Had to Be Carried from Scene B—Bruises, Abrasions, Swelling, Limping, Etc. C—No Visible Injury But Complained of Pain or Momentary Unconsciousness O—Not Injured	FIRST AID BY 1—None 2—Police 3—Emergency Medical Technician 4—Doctor 5—Rescue Squad 6—Helicopter Crew 7—Paramedic 8—Unknown	SEATING <div style="display: flex; flex-wrap: wrap;"> <div style="border: 1px solid black; padding: 2px; margin: 2px;">1</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">2</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">3</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">4</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">5</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">6</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">7</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">8</div> <div style="border: 1px solid black; padding: 2px; margin: 2px;">9</div> </div> M—Motorcycle B—Pedalcycle P—Pedestrian O—Other NOTE: Positions 7, 8 and 9 indicate Rear of Station Wagon	SEAT BELTS 1—None Installed 2—Not Used 3—Lap Belt Only Used 4—Lap and Shoulder Belts Used 5—Unknown 6—Child Safety Seat	EJECTED 1—No 2—Yes 3—Partially 4—Unknown	
	HAZARDOUS CARGO <input checked="" type="checkbox"/> 0—No 1—Yes 2—Unknown		EXTRICATION <input checked="" type="checkbox"/> 0—Not Extricated 1—Extricated 2—Unknown		FIRE OCCURRENCE <input checked="" type="checkbox"/> 0—No Fire 1—Fire Occurred in Vehicle During Accident	
A C C I D E N T	EST. TIME EMS WAS CALLED <div style="border: 1px solid black; padding: 2px;">1535 HRS.</div>		EST. TIME EMS ARRIVED <div style="border: 1px solid black; padding: 2px;">1539 HRS.</div>		EST. TIME EMS DEPARTED <div style="border: 1px solid black; padding: 2px;">1559 HRS.</div>	
	NAME		ADDRESS		DRIVER 1: → <div style="border: 1px solid black; padding: 2px;">18</div> <div style="border: 1px solid black; padding: 2px;">M</div> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">A</div> <div style="border: 1px solid black; padding: 2px;">5</div> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">5</div> <div style="border: 1px solid black; padding: 2px;">1</div> DRIVER 2: → <div style="border: 1px solid black; padding: 2px;">71</div> <div style="border: 1px solid black; padding: 2px;">M</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">K</div> <div style="border: 1px solid black; padding: 2px;">5</div> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">5</div> <div style="border: 1px solid black; padding: 2px;">1</div>	
P E R S O N S I N V O L V E D						
A C C I D E N T T Y P E	1 <input type="checkbox"/> Rear End 2 <input checked="" type="checkbox"/> Head On 3 <input type="checkbox"/> Same Direction Sideswipe 4 <input type="checkbox"/> Opp Direction Sideswipe		5 <input type="checkbox"/> 6 <input type="checkbox"/> LEFT & RIGHT TURN 7 <input type="checkbox"/> LEFT TURNS 8 <input type="checkbox"/> RIGHT TURNS 9 <input type="checkbox"/>		SINGLE VEHICLE ACCIDENT ACCIDENT OCCURRED <input type="checkbox"/> ON <input type="checkbox"/> OFF PAVEMENT 18 <input type="checkbox"/> Hit Fixed Object 22 <input type="checkbox"/> Hit Train 19 <input type="checkbox"/> Hit Pedestrian 23 <input type="checkbox"/> Ran Off Road 20 <input type="checkbox"/> Hit Animal 24 <input type="checkbox"/> Overturned 21 <input type="checkbox"/> Hit Parked Vehicle 25 <input type="checkbox"/> Other	
	NAME OF WITNESS		ADDRESS		CITY STATE	
W I T N E S S					AGE <div style="border: 1px solid black; padding: 2px;">46</div> SEX <div style="border: 1px solid black; padding: 2px;">M</div> AGE <div style="border: 1px solid black; padding: 2px;">48</div> SEX <div style="border: 1px solid black; padding: 2px;">F</div>	
P E D	PEDESTRIAN ACTION: Clothing <input type="checkbox"/> Light <input type="checkbox"/> Dark		1 <input type="checkbox"/> Crossing at Intersection 2 <input type="checkbox"/> Crossing Not at Intersection 3 <input type="checkbox"/> Walking on Pavement With Traffic		4 <input type="checkbox"/> Walking on Pavement Facing Traffic 5 <input type="checkbox"/> Standing on Pavement 6 <input type="checkbox"/> Playing on Pavement	
E N V I R O N M E N T	LIGHT 1 <input checked="" type="checkbox"/> Daylight 2 <input type="checkbox"/> Dark 3 <input type="checkbox"/> Dark, Artificial Lights 4 <input type="checkbox"/> Dusk 5 <input type="checkbox"/> Dawn	WEATHER 1 <input type="checkbox"/> Clear 2 <input type="checkbox"/> Cloudy 3 <input checked="" type="checkbox"/> Raining 4 <input type="checkbox"/> Fog, Smog 5 <input type="checkbox"/> Snowing or Steeting 6 <input type="checkbox"/> Hailing	ROADWAY SURFACE 1 <input type="checkbox"/> Dry 2 <input checked="" type="checkbox"/> Wet 3 <input type="checkbox"/> Snow, Ice 4 <input type="checkbox"/> Muddy 5 <input type="checkbox"/> Hazardous Material	ROAD TYPE 1 <input type="checkbox"/> Concrete 2 <input type="checkbox"/> Brick 3 <input type="checkbox"/> Gravel 4 <input type="checkbox"/> Dirt 5 <input type="checkbox"/> Other	TRAFFIC CONTROL 1 <input type="checkbox"/> Stop Sign 2 <input type="checkbox"/> Traffic Signal 3 <input type="checkbox"/> Yield Sign 4 <input type="checkbox"/> Officer, Flagman 5 <input type="checkbox"/> RR Gates, Signals 6 <input checked="" type="checkbox"/> None 7 <input type="checkbox"/> Other <input type="checkbox"/> Yes <input type="checkbox"/> No	VISION OBSCURED BY 1 <input checked="" type="checkbox"/> Not Obscured 2 <input type="checkbox"/> Rain, Snow, Ice on Windshield 3 <input type="checkbox"/> Trees, Bushes 4 <input type="checkbox"/> Building(s) 5 <input type="checkbox"/> Embankment 6 <input type="checkbox"/> Signboard 7 <input type="checkbox"/> Hillcrest 8 <input type="checkbox"/> Parked Vehicle(s) 9 <input type="checkbox"/> Moving Vehicle(s) 10 <input type="checkbox"/> Blinding Headlights 11 <input type="checkbox"/> Blinding Sunlight 12 <input type="checkbox"/> Other 13 <input type="checkbox"/> Unknown
	WERE LANES CLEARLY MARKED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		NUMBER OF LANES <div style="border: 1px solid black; padding: 2px;">2</div>		FUNCTIONING <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
NAME OF INVESTIGATING OFFICER			UNIT NUMBER		POLICE AGENCY	
The date in this report reflects my best judgment and knowledge					DATE	
INVESTIGATING OFFICER'S SIGNATURE						

STATEMENTS OF INVOLVED DRIVERS AND WITNESSES (IF AVAILABLE)

Statement of

I was going north on to pick up a friend at I was making a curve and this car was coming at me in my lane. This car was going down the hill. I swerved to miss that car. I missed him, but he kept going down the hill. Then before I could get back to my lane, I collided with another car coming down the hill. The guy I hit did nothing wrong. The only one who did something wrong was the first guy that was in my lane.

This statement is true and correct to the best of my knowledge.

/s/ Unable to Sign

RECEIVED

TRAFFIC RECORDS

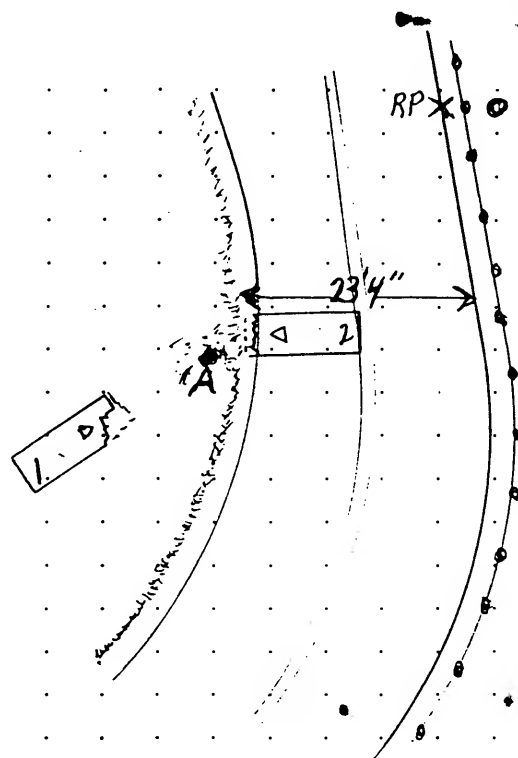
DRAW SCENE AS OBSERVED, INCLUDING ROADWAY LAYOUT, VEHICLES, PEDESTRIAN OR OBJECT STRUCK, TRAFFIC CONTROLS, SKIDMARKS, ETC.
IMPORTANT: NUMBER THE VEHICLES ACCORDING TO THE VEHICLE NUMBERS ON THE FRONT PAGE

DRAW ARROW POINTING NORTH IN CIRCLE

RP is 8 Feet west of C+P Pole ON
The ~~East Side of the Roadway~~ AT The Roadway Edge



COLLISION DIAGRAM



FROM RP COORDINATES

POINT	N-S	E-W
RR #1	21 ⁶ / ₅	11 ⁸ / _W
RF #1	21 ⁷ / ₅	23 ³ / _W
LR #2	41 ⁹ / ₅	42 ⁸ / _W
LF #2	33 ¹¹ / ₅	34 ¹¹ / _W
DEBRIS IMPACT	28 ⁴ / ₅	21 ⁹ / _W

MEASURED BY:
DRAWN BY: SGT

NOT DRAWN TO SCALE

DESCRIBE WHAT HAPPENED (Refer to Vehicles by Number)

NARRATIVE

Driver #1 was traveling North on Driver #2 was traveling South on Based on eyewitness!

statements, Vehicle #1 was traveling at a high rate of speed through the turns at As

Vehicle #1 approached it went out of control, crossed into the southbound lane of

traffic, nearly striking two other vehicles. Vehicle #1 then impacted Vehicle #2 head on in the south-bound lane of traffic.

AM.WVWSP0004. SPTR.
TXT
ES 235 SP TRAFFIC RECORDS
TO
REF FATAL CRASH ON
REL

ATTN:

PLEASE ADVISE THE FOLLOWING:

- 1-WAS THERE A YELLOW WARNING SIGN POSTED PRIOR TO THE CURVE INDICATING THE SAFE SPEED OR DISPLAYING A CURVE AHEAD? *YES*
- 2-CHECK WITH THE RESCUE SQUAD THAT ASSISTED AT THE SCENE AND SEE IF EITHER OR WERE WEARING A SAFETY BELT OR NOT. IF SO, ADVISE THE NAME & TYPE BELT WORN. *-Lap/Shoulder YES - Type Unknown.*
- 3-DO YOU HAVE THE BLOOD TEST RESULTS FOR THE SUPPLEMENT INDICATED AND EVIDENTIAL TEST WAS PERFORMED. ADVISE THE BAC & DRUG SCREEN RESULTS. ADVISE IF TESTED ON BLOOD OR URINE. *.01 NO DRUG TEST*

*** REPORT DATA TO

VIA

OR PHONE:

AUTH FATAL ACCIDENT REPORTING SYSTEM
IN SPTR
OUT SPTRP

ANALYST 12:42

0

FATAL ACCIDENT SUPPLEMENT

BEST AVAILABLE

COUNTY _____		DETACHMENT _____	
DRIVER #1 _____	CORRECTIVE LENSES OR CONTACTS	HAZARDOUS CARGO	FIRE OCCURRENCE
DRIVER #2 _____	DRIVER: <u>2</u>	VEH # <u>N/A</u>	VEH # <u>N/A</u>
OTHER _____	DRIVER: _____	VEH # _____	VEH # _____
POSTED SPEED LIMIT: <u>35</u>	ALIGNMENT (CHECK ONE)	ROAD PROFILE (CHECK ONE)	
ROADWAY FLOW:	<input checked="" type="checkbox"/> STRAIGHT	<input type="checkbox"/> LEVEL	<input checked="" type="checkbox"/> GRADE
<input type="checkbox"/> DIVIDED HIGHWAY (IF YES, CHECK ONE OF THE FOLLOWING)	<input type="checkbox"/> CURVE	<input type="checkbox"/> HILLCREST	<input type="checkbox"/> SAG
<input type="checkbox"/> MEDIAN STRIP	TRAVEL SPEED	ACTUAL	ESTIMATED
<input type="checkbox"/> GUARDRAIL	DRIVER #1:	_____	_____
<input type="checkbox"/> OTHER BARRIER	DRIVER #2:	_____	_____
<input type="checkbox"/> NOT PHYSICALLY DIVIDED	EMS ARRIVAL TIME AT HOSPITAL <u>1608</u>		
<input type="checkbox"/> ONE WAY TRAFFICWAY	(IF MORE THAN ONE UNIT RESPONDS, LIST TIME FOR FIRST UNIT ARRIVING AT HOSPITAL)		
HELMET USAGE (MOTORCYCLIST/PEDALCYCLIST)	CHILD SAFETY SEAT		
<input type="checkbox"/> YES <input type="checkbox"/> NO <u>N/A</u>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> IMPROPERLY USED <u>N/A</u>		
CRASH AVOIDANCE MANEUVER (MARK FOR EACH VEHICLE)			
NO AVOIDANCE MANEUVER	VEHICLE # _____	BRAKING (SKIDMARKS EVIDENT)	VEHICLE # _____
STEERING (EVIDENCE OR STATED)	VEHICLE # _____	BRAKING (NO SKIDMARKS, DRIVER STATED)	VEHICLE # _____
STEERING & BRAKING (EVIDENCE OR STATED)	VEHICLE # <u>1, 2</u>	OTHER AVOIDANCE MANEUVER	VEHICLE # _____
METHOD OF ALCOHOL/DRUG DETERMINATION (LIST NAME, VEHICLE # AND TEST FOR ALL INDIVIDUALS INVOLVED)			
NAME: _____	VEH #: <u>2</u>	NAME: _____	VEH #: _____
<input checked="" type="checkbox"/> EVIDENTIAL TEST (BREATH, BLOOD OR URINE)		<input type="checkbox"/> EVIDENTIAL TEST (BREATH, BLOOD OR URINE)	
<input type="checkbox"/> PBT		<input type="checkbox"/> PBT	
<input type="checkbox"/> FIELD SOBRIETY TESTING		<input type="checkbox"/> FIELD SOBRIETY TESTING	
<input type="checkbox"/> OBSERVATION		<input type="checkbox"/> OBSERVATION	
<input type="checkbox"/> DRUG USE SUSPECTED		<input type="checkbox"/> DRUG USE SUSPECTED	
EJECTION PATH LIST NAME, VEHICLE AND PATH OF THOSE EJECTED			
NAME: _____	VEH #: _____	NAME: _____	VEH #: _____
<input type="checkbox"/> SIDE DOOR		<input type="checkbox"/> SIDE DOOR	
<input type="checkbox"/> BACK WINDOW		<input type="checkbox"/> BACK WINDOW	
<input type="checkbox"/> WINDSHIELD		<input type="checkbox"/> WINDSHIELD	
<input type="checkbox"/> BACK DOOR/TAILGATE		<input type="checkbox"/> BACK DOOR/TAILGATE	
<input type="checkbox"/> ROOF OPENING (SUNROOF/CONVERTIBLE TOP DOWN)		<input type="checkbox"/> ROOF OPENING (SUNROOF/CONVERTIBLE TOP DOWN)	
<input type="checkbox"/> ROOF OPENING (CONVERTIBLE TOP UP)		<input type="checkbox"/> ROOF OPENING (CONVERTIBLE TOP UP)	
<input type="checkbox"/> OTHER PATH (BED OF PICKUP TRUCK)		<input type="checkbox"/> OTHER PATH (BED OF PICKUP TRUCK)	
AIR BAG FUNCTION			
<input checked="" type="checkbox"/> DEPLOYED	VEHICLE # <u>2</u>	<input checked="" type="checkbox"/> DRIVER SIDE	<input type="checkbox"/> PASSENGER SIDE
<input type="checkbox"/> NON-DEPLOYED			
EXTRICATION: (JAWS-OF-LIFE, SAWS, AIR BAGS, ETC.)			
None			
VEHICLE #: _____	NAME: _____	DATE OF DEATH: _____	TIME OF DEATH: _____
VEHICLE #: _____	NAME: _____	DATE OF DEATH: _____	TIME OF DEATH: _____
VEHICLE #: _____	NAME: _____	DATE OF DEATH: _____	TIME OF DEATH: _____

SEND ORIGINAL TO: TRAFFIC RECORDS SECTION (NO COPIES NEEDED)

TRANSPORTATION RESEARCH CENTER

Indiana University
Bloomington, Indiana 47403-1599

REMOTE AIR BAG REPORT

NASS CDS FORMS AND MEDICAL RECORDS

CASE NO. - 96-28
FLEET - PRIVATE VEHICLE
LOCATION -
ACCIDENT DATE -

Submitted By:

Associate Scientist
and

Associate Scientist

Revised Submission:

Contract Number:

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590-0003



U.S. Department of Transportation
National Highway Traffic Safety
Administration

ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

IDENTIFICATION

3. Number of General Vehicle
Forms Submitted

4. Date of Accident
(Month, Day, Year)

5. Time of Accident

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS15-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. SS15 Administrative Use

7. SS16 Pedestrian Crash Data Study
(Data for this special study available
in a separate file.)

8. SS17 Impact Fires

9. SS18 Unsafe Driver Actions

10. SS19 Run Off Road

NUMBER OF EVENTS

11. Number of Recorded Events
in This Accident

Code the number of events which occurred
in this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object in the right columns.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. 0 1	13. 0 1	14. 0 3	15. F	16. 0 2	17. 0 1	18. F
19. 0 2	20.	21.	22.	23.	24.	25.
26. 0 3	27.	28.	29.	30.	31.	32.
33. 0 4	34.	35.	36.	37.	38.	39.
40. 0 5	41.	42.	43.	44.	45.	46.

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

CODES FOR CLASS OF VEHICLE

- | | |
|--|--|
| <p>(00) Not a motor vehicle <i>CV: 104.3 ⇒ 265</i></p> <p>(01) Subcompact/mini (wheelbase < 254 cm)</p> <p>(02) Compact (wheelbase ≥ 254 but < 265 cm)</p> <p>(03) Intermediate (wheelbase ≥ 265 but < 278 cm)</p> <p>(04) Full size (wheelbase ≥ 278 but < 291 cm)</p> <p>(05) Largest (wheelbase ≥ 291 cm)</p> <p>(09) Unknown passenger car size</p> <p>(14) Compact utility vehicle <i>V2: 95.7 ⇒ 243</i></p> <p>(15) Large utility vehicle (≤ 4,536 kgs GVWR)</p> <p>(16) Utility station wagon (≤ 4,536 kgs GVWR)</p> <p>(19) Unknown utility type</p> <p>(20) Minivan (≤ 4,536 kgs GVWR)</p> <p>(21) Large van (≤ 4,536 kgs GVWR)</p> <p>(24) Van Based school bus (≤ 4,536 kgs GVWR)</p> <p>(28) Other van type (≤ 4,536 kgs GVWR)</p> <p>(29) Unknown van type (≤ 4,536 kgs GVWR)</p> <p>(30) Compact pickup truck (≤ 4,536 kgs GVWR)</p> | <p>(31) Large pickup truck (≤ 4,536 kgs GVWR)</p> <p>(38) Other pickup truck (≤ 4,536 kgs GVWR)</p> <p>(39) Unknown pickup truck type (≤ 4,536 kgs GVWR)</p> <p>(45) Other light truck (≤ 4,536 kgs GVWR)</p> <p>(48) Unknown light truck type (≤ 4,536 kgs GVWR)</p> <p>(49) Unknown light vehicle type</p> <p>(50) School bus (excludes van based) (> 4,536 kgs GVWR)</p> <p>(58) Other bus (> 4,536 kgs GVWR)</p> <p>(59) Unknown bus type</p> <p>(60) Truck (> 4,536 kgs GVWR)</p> <p>(67) Tractor without trailer</p> <p>(68) Tractor-trailer(s)</p> <p>(78) Unknown medium/heavy truck type</p> <p>(79) Unknown light/medium/heavy truck type</p> <p>(80) Motored cycle</p> <p>(90) Other vehicle</p> <p>(99) Unknown</p> |
|--|--|

CODES FOR GENERAL AREA OF DAMAGE (GAD)

CDS APPLICABLE AND OTHER VEHICLES	(O) Not a motor vehicle (N) Noncollision (F) Front	(R) Right side (L) Left side (B) Back	(T) Top (U) Undercarriage (9) Unknown
TDC APPLICABLE VEHICLES	(O) Not a motor vehicle (N) Noncollision (F) Front (R) Right side	(L) Left side (B) Back of unit with cargo area (rear of trailer or straight truck) (D) Back (rear of tractor)	(C) Rear of cab (V) Front of cargo area (T) Top (U) Undercarriage (9) Unknown

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

- | | |
|---|---|
| <p>(01-30) — Vehicle Number</p> <p>Noncollision</p> <p>(31) Overturn — rollover (excludes end-over-end)</p> <p>(32) Rollover — end-over-end</p> <p>(33) Fire or explosion</p> <p>(34) Jackknife</p> <p>(35) Other intraunit damage (specify): _____</p> <p>(36) Noncollision injury _____</p> <p>(38) Other noncollision (specify): _____</p> <p>(39) Noncollision — details unknown _____</p> <p>Collision With Fixed Object</p> <p>(41) Tree (≤ 10 cm in diameter)</p> <p>(42) Tree (> 10 cm in diameter)</p> <p>(43) Shrubbery or bush</p> <p>(44) Embankment</p> <p>(45) Breakaway pole or post (any diameter)</p> <p>Nonbreakaway Pole or Post</p> <p>(50) Pole or post (≤ 10 cm in diameter)</p> <p>(51) Pole or post (> 10 cm but ≤ 30 cm in diameter)</p> <p>(52) Pole or post (> 30 cm in diameter)</p> <p>(53) Pole or post (diameter unknown)</p> <p>(54) Concrete traffic barrier</p> <p>(55) Impact attenuator</p> <p>(56) Other traffic barrier (includes guardrail)
(specify): _____</p> | <p>(57) Fence</p> <p>(58) Wall</p> <p>(59) Building</p> <p>(60) Ditch or culvert</p> <p>(61) Ground</p> <p>(62) Fire hydrant</p> <p>(63) Curb</p> <p>(64) Bridge</p> <p>(68) Other fixed object (specify): _____</p> <p>(69) Unknown fixed object _____</p> <p>Collision with Nonfixed Object</p> <p>(70) Passenger car, light truck, van, or other vehicle
not in-transport</p> <p>(71) Medium/heavy truck or bus not in-transport</p> <p>(72) Pedestrian</p> <p>(73) Cyclist or cycle</p> <p>(74) Other nonmotorist or conveyance _____</p> <p>(75) Vehicle occupant _____</p> <p>(76) Animal</p> <p>(77) Train</p> <p>(78) Trailer, disconnected in transport</p> <p>(79) Object fell from vehicle in-transport</p> <p>(88) Other nonfixed object (specify): _____</p> <p>(89) Unknown nonfixed object _____</p> <p>(98) Other event (specify): _____</p> <p>(99) Unknown event or object _____</p> |
|---|---|

NASS CDS GENERAL VEHICLE FORM: CASE VEHICLE



U.S. Department of Transportation
National Highway Traffic Safety
Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

VEHICLE IDENTIFICATION

4. Vehicle Model Year

Code the last two digits of the model year
(99) Unknown

5. Vehicle Make (specify):

NISSAN

Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown

6. Vehicle Model (specify):

MAXIMA

Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(999) Unknown

7. Body Type

Note: Applicable codes may be found on
the back of this page.

8. Vehicle Identification Number

JN1HJ01F9RT- - - - -

Left justify; Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nines

9. Vehicle Special Use (This Trip)

(0) No special use

(1) Taxi

(2) Vehicle used as school bus

(3) Vehicle used as other bus

(4) Military

(5) Police

(6) Ambulance

(7) Fire truck or car

(8) Other (specify):

(9) Unknown

OFFICIAL RECORDS

10. Police Reported Vehicle Disposition

(0) Not towed due to vehicle damage

(1) Towed due to vehicle damage

(9) Unknown

11. Police Reported Travel Speed

Code to the nearest kmph (NOTE: 000 means
less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

___ mph X 1.6093 = ___ kmph

12. Speed Limit

(000) No statutory limit

Code posted or statutory speed limit in kmph

(999) Unknown

35 mph X 1.6093 = 56 kmph

13. Police Reported Alcohol Presence For Driver

(0) No alcohol present

(1) Yes alcohol present

(7) Not reported

(8) No driver present

(9) Unknown

14. Alcohol Test Result For Driver

Code actual value (decimal implied
before first digit—0.xx)

(95) Test refused

(96) None given

(97) AC test performed, results unknown

(98) No driver present

(99) Unknown Initial

Source:

15. Police Reported Other Drug Presence For Driver

(0) No other drug(s) present

(1) Yes other drug(s) present

(7) Not reported

(8) No driver present

(9) Unknown

16. Other Drug Specimen Test Result For Driver

(0) No specimen test given

(1) Drug(s) not found in specimen

(2) Drug(s) found in specimen, (specify):

(3) Specimen test given, results unknown or not
obtained

(8) No driver present

(9) Unknown if specimen test given

17. Driver's Zip Code

(00001) Driver not a resident of U.S. or territories

43935 Code actual 5-digit zip code

(99998) No driver present

(99999) Unknown ZIP Directory

18. Driver's Race/Ethnic Origin

(1) White (non-Hispanic)

(2) Black (non-Hispanic)

(3) White (Hispanic)

(4) Black (Hispanic)

(5) American Indian, Eskimo or Aleut

(6) Asian or Pacific Islander

(7) Other (specify):

(8) No driver present

(9) Unknown

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 4,536$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 4,536$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 4,536$ kgs GVWR)
- (23) Van based motorhome ($\leq 4,536$ kgs GVWR)
- (24) Van based school bus ($\leq 4,536$ kgs GVWR)
- (25) Van based other bus ($\leq 4,536$ kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 4,536$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)
- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 4,536$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks ($> 4,536$ kgs GVWR)

- (60) Step van ($> 4,536$ kgs GVWR)
- (61) Single unit straight truck ($4,536$ kgs $<$ GVWR $\leq 8,845$ kgs)
- (62) Single unit straight truck ($8,845$ kgs $<$ GVWR $\leq 11,793$ kgs)
- (63) Single unit straight truck ($> 11,793$ kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction ϕ
- (0) Non-interchange area and non-junction
 - (1) Interchange area related

Non-Interchange junctions

- (2) Intersection related
- (3) Driveway, alley access related
- (4) Other junction (specify) _____

- (5) Unknown type of junction _____

- (9) Unknown

20. Trafficway Flow ϕ
- (0) Not physically divided (two way traffic)
 - (1) Divided trafficway-median strip without positive barrier
 - (2) Divided trafficway-median strip with positive barrier
 - (3) One way traffic
 - (9) Unknown

21. Number Of Travel Lanes 2
- (1) One
 - (2) Two
 - (3) Three
 - (4) Four
 - (5) Five
 - (6) Six
 - (7) Seven or more
 - (9) Unknown

22. Roadway Alignment 2
- (1) Straight
 - (2) Curve right
 - (3) Curve left
 - (9) Unknown

23. Roadway Profile 1
- (1) Level
 - (2) Uphill grade (> 2%)
 - (3) Hill crest
 - (4) Downhill grade (> 2%)
 - (5) Sag
 - (9) Unknown

24. Roadway Surface Type 2
- (1) Concrete
 - (2) Bituminous (asphalt)
 - (3) Brick or block
 - (4) Slag, gravel, or stone
 - (5) Dirt
 - (8) Other (specify): _____
 - (9) Unknown

25. Roadway Surface Condition 2

- (1) Dry
- (2) Wet
- (3) Snow or slush
- (4) Ice
- (5) Sand, dirt, or oil
- (8) Other (specify): _____
- (9) Unknown

26. Light Conditions 1

- (1) Daylight
- (2) Dark
- (3) Dark, but lighted
- (4) Dawn
- (5) Dusk
- (9) Unknown

27. Atmospheric Conditions 1

- (0) No adverse atmospheric-related driving conditions
- (1) Rain
- (2) Sleet/hail
- (3) Snow
- (4) Fog
- (5) Rain and fog
- (6) Sleet and fog
- (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): _____
- (9) Unknown

28. Traffic Control Device ϕ

- (0) No traffic control(s)
- (1) Traffic control signal (not RR crossing)

Regulatory

- (2) Stop sign *Solid double yellow lane lines*
- (3) Yield sign
- (4) School zone sign
- (5) Other regulatory sign (specify): _____

- (6) Warning sign (not RR crossing)
- (7) Unknown sign
- (8) Miscellaneous/other controls including RR controls (specify): _____

- (9) Unknown

29. Traffic Control Device Functioning ϕ

- (0) No traffic control device
- (1) Traffic control device not functioning (specify): _____
- (2) Traffic control device functioning properly
- (9) Unknown

PRECRASH DRIVER RELATED DATA

30. Driver's Distraction/Inattention To Driving (Prior To Recognition Of Critical Event) 99
- (00) No driver present
(01) Attentive or not distracted
(02) Looked but did not see
- Distractions*
- (03) By other occupant(s), (specify): _____
- (04) By moving object in vehicle (specify): _____
- (05) While talking or listening to cellular phone (specify location and type of phone): _____
- (06) While dialing cellular phone (specify location and type of phone): _____
- (07) While adjusting climate controls
(08) While adjusting radio, cassette, CD (specify): _____
- (09) While using other device/controls integral to vehicle (specify): _____
- (10) While using or reaching for device/object brought into vehicle (specify): _____
- (11) Sleepy or fell asleep
(12) Distracted by outside person, object, or event (specify): _____
- (13) Eating or drinking
(14) Smoking related
(97) Distracted/inattentive, details unknown
(98) Other, distraction (specify): _____
- (99) Unknown

31. Pre-Event Movement (Prior to Recognition of Critical Event) 14
- (00) No driver present
(01) Going straight
(02) Decelerating in traffic lane
(03) Accelerating in traffic lane
(04) Starting in traffic lane
(05) Stopped in traffic lane
(06) Passing or overtaking another vehicle
(07) Disabled or parked in travel lane
(08) Leaving a parking position
(09) Entering a parking position
(10) Turning right
(11) Turning left
(12) Making a U-turn
(13) Backing up (other than for parking position)
(14) Negotiating a curve
(15) Changing lanes
(16) Merging
(17) Successful avoidance maneuver to a previous critical event
(97) Other (specify): _____
(99) Unknown

32. Critical Precrash Event 54

THIS VEHICLE LOSS OF CONTROL DUE TO:

- (01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
- (06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
- (09) Unknown cause of control loss

THIS VEHICLE TRAVELLING

- (10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(18) This vehicle decelerating
(19) Unknown travel direction

OTHER MOTOR VEHICLE IN LANE

- (50) Other vehicle stopped
(51) Traveling in same direction with lower steady speed
(52) Traveling in same direction while decelerating
(53) Traveling in same direction with higher speed
(54) Traveling in opposite direction
(55) In crossover
(56) Backing
(59) Unknown travel direction of other motor vehicle in lane

OTHER MOTOR VEHICLE ENCROACHING INTO LANE

- (60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

PEDESTRIAN, PEDALCYCLIST, OR OTHER NONMOTORIST

- (80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian—unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
- (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): _____
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

OBJECT OR ANIMAL

- (87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location
(98) Other critical precrash event (specify): _____
- (99) Unknown

33. Attempted Avoidance Maneuver 46

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify):

(99) Unknown

34. Pre-Impact Stability 1

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify):

(9) Pre-crash stability unknown

35. Pre-Impact Location 1

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

36. Accident Type 51

(Note: Applicable codes on back of this page)

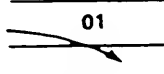
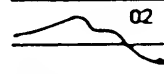
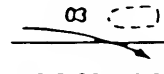
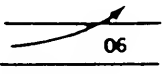
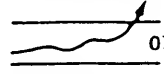
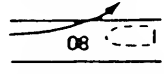
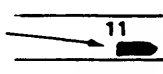


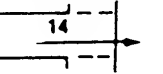
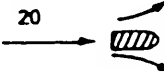
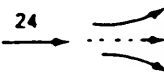
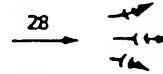
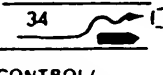
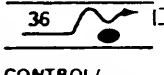
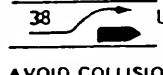
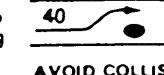
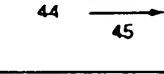
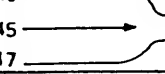

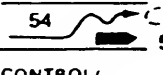
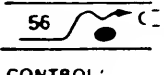

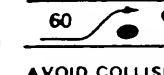

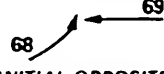


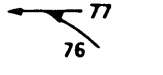
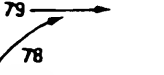
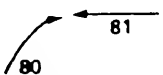
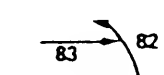
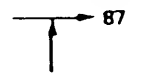
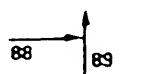
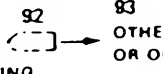
- (00) No impact

Code the number of the diagram that best describes the accident circumstance

- (98) Other accident type (specify):

(99) Unknown

STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 24 SLOWER 25, 26, 27	 28 DECEL. 29, 30, 31	26 25 27 29 30 31 (EACH • 32) SPECIFICS OTHER	(EACH • 33) SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER (EACH • 43) SPECIFICS UNKNOWN
	F Sideswipe Angle	 44 45	 46 45 47	(EACH • 48) SPECIFICS OTHER	(EACH • 49) SPECIFICS UNKNOWN	
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER	(EACH • 53) SPECIFICS UNKNOWN		
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER (EACH • 63) SPECIFICS UNKNOWN
	I Sideswipe Angle	 64 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER	(EACH • 67) SPECIFICS UNKNOWN		
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 71 INITIAL SAME DIRECTIONS	 73 72	(EACH • 74) SPECIFICS OTHER	(EACH • 75) SPECIFICS UNKNOWN
	K Turn Into Path	 76 77	 79 78	 80 81	 83 82	(EACH • 84) SPECIFICS OTHER (EACH • 85) SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 86 87	 88 89	(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN	
VI Miscellaneous	M Backing Etc	 92 BACKING VEH.	93 OTHER VEH OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No Impact		

OCCUPANT RELATED

37. Driver Presence in Vehicle 1
 (0) Driver not present
 (1) Driver present
 (9) Unknown
38. Number of Occupants This Vehicle 1
 (00-96) Code actual number of occupants for this vehicle
 (97) 97 or more
 (99) Unknown
39. Number of Occupant Forms Submitted 1

AIR BAG RELATED

40. Is this an AOPS Vehicle? 1
 (0) No (includes unknown)
 (1) Yes - researcher determined
 (2) VIN determined air bag system
 (3) VIN determined automatic (passive) belts
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 2
 (0) Not equipped or not available
 (1) No air bags deployed
Single Air Bag Vehicle
 (2) Driver air bag deployed
 (3) Driver air bag, unknown if deployed
Multiple Air Bag Vehicle
 (4) Driver side only deployed
 (5) Passenger side only deployed
 (6) Driver and passenger side deployed
 (7) Driver and passenger side unknown if deployed
 (8) Air bag(s) deployed, details unknown
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 1
 (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown
- Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1,460
 Code weight to nearest 10 kilograms.
 (045) Less than 454 kilograms
 (612) 6,124 kilograms or more
 (999) Unknown
3,224 lbs X 4536 = 1,462 kgs
 Source: _____

44. Vehicle Cargo Weight 9,990
 Code weight to nearest 10 kilograms.
 (000) Less than 5 kilograms
 (454) 4,536 kilograms or more
 (999) Unknown
 _____ lbs X .4536 = _____ kgs
 Source: _____

ROLLOVER DATA

45. Rollover 1
 (00) No rollover (no overturning)
Rollover (primarily about the longitudinal axis)
 (01-16) Code the number of quarter turns
 (17) Rollover, 17 or more quarter turns (specify): _____
 (98) Rollover--end-over-end (i.e., primarily about the lateral axis)
 (99) Rollover (overturn), details unknown
46. Rollover Initiation Type 1
 (00) No rollover
 (01) Trip-over
 (02) Flip-over
 (03) Turn-over
 (04) Climb-over
 (05) Fall-over
 (06) Bounce-over
 (07) Collision with another vehicle
 (08) Other rollover initiation type specify): _____
 (98) Rollover--end-over-end
 (99) Unknown rollover initiation type
47. Location of Rollover Initiation 1
 (0) No rollover
 (1) On roadway
 (2) On shoulder--paved
 (3) On shoulder--unpaved
 (4) On roadside or divided trafficway median
 (8) Rollover--end-over-end
 (9) Unknown
48. Rollover Initiation Object Contacted 1
 (Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 1
 (0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify): _____
 (6) Non-contact rollover forces (specify): _____
 (8) Rollover--end-over-end
 (9) Unknown
50. Direction of Initial Roll 1
 (0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (8) Rollover--end-over-end
 (9) Unknown roll direction

OVERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) ϕ
52. Rear Override/Underride (this Vehicle) ϕ
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

*Override (see specific CDC)**(Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49))*

- (1) 1st CDC
- (2) 2nd CDC
- (3) Other not automated CDC (specify):

*Underride (see specific CDC)**(Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49))*

- (4) 1st CDC
- (5) 2nd CDC
- (6) Other not automated CDC (specify):

- (7) Medium/heavy truck or bus override (of any configuration)
- (9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value

- (996) Non-horizontal impact
- (997) Noncollision
- (998) Impact with object
- (999) Unknown

53. Heading Angle For This Vehicle 17 ϕ
54. Heading Angle For Other Vehicle 34 ϕ

RECONSTRUCTION DATA

55. Towed Trailing Unit ϕ
- (0) No towed unit
- (1) Yes—towed trailing unit
- (9) Unknown
56. Documentation of Trajectory Data for This Vehicle ϕ
- (0) No
- (1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) ϕ
- (0) Not collision (for highest delta V) with tree or pole
- (1) Not damaged
- (2) Cracked/sheared
- (3) Tilted < 45 degrees
- (4) Tilted \geq 45 degrees
- (5) Uprooted tree
- (6) Separated pole from base
- (7) Pole replaced
- (8) Other (specify):
- (9) Unknown

ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) ϕ ϕ

(00) No vehicle inspection

Delta V Calculated

- (01) Reconstruction program—damage only routine
- (02) Reconstruction program—damage and trajectory routine
- (03) Missing vehicle algorithm

Delta V Not Calculated

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

- (05) Rollover
- (06) Other non-horizontal forces
- (07) Sideswipe type damage
- (08) Severe override
- (09) Yielding object
- (10) Overlapping damage
- (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify):

(98) Other, (specify):

COMPUTER GENERATED CRASH SEVERITY59. Total Delta V Highest999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

60. Longitudinal Component of Delta V Highest+ 999
- _____

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: _000 means greater than
-0.5 kmph and less than +0.5 kmph)
(±160) ±159.5 kmph and above
(_999) Unknown

61. Lateral Component of Delta V Highest+ 999
- _____

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: _000 means greater than -0.5 kmph and
less than +0.5 kmph)
(±160) ±159.5 kmph and above
(_999) Unknown

62. Energy Absorption Highest999.9 00

_____ Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

63. Impact Speed Highest999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means
less than 0.5 kmph)
(160) 159.5 kmph and above
(998) Trajectory algorithm not run
(999) Unknown

DELTA V CONFIDENCE LEVEL64. Confidence In Reconstruction Program
Results (For Highest Delta V)Φ

- (0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

OTHER SPEED ESTIMATE65. Barrier Equivalent Speed Highest999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means
less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

ESTIMATED DELTA V

66. Estimated Highest Delta V (Researcher Determined)

(0) Reconstruction Delta V coded

Estimated Delta V

- (1) Less than 10 kmph
 (2) \geq 10 kmph but $<$ 25 kmph
 (3) \geq 25 kmph but $<$ 40 kmph
 (4) \geq 40 kmph but $<$ 55 kmph
 (5) \geq 55 kmph

Other estimates of damage severity

- (6) Minor
 (7) Moderate
 (8) Severe
 (9) Unknown

3**INSPECTION TYPE**

67. Type of Vehicle Inspection

- (0) No inspection
 (1) Vehicle fully repaired-no damage evident
 (2) Partial inspection (specify):
 (3) Complete inspection

0**DELTA V EVENT NUMBER**

68. Delta V Event Number

- Code the accident event sequence number that resulted in the Delta V that has been coded above for this vehicle
 (99) Unknown

1

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
 OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Administration		CRASHWORTHINESS DATA SYSTEM	
1. Primary Sampling Unit Number	<u>10</u>	3. Vehicle Number	<u>01</u>
2. Case Number - Stratum	<u>9628</u>		

VEHICLE IDENTIFICATION

VIN JN1AJ01F9R----- Model Year 94
Vehicle Make (specify): NISSAN Vehicle Model (specify): Maxima 4-dr

LOCATOR

Locate the end of the damage with respect to the vehicle's damaged center point or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
1	F (R) two thirds	F (R) corner inward	(R) corner

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	<u>104.3</u>	inches	x 2.54	=	<u>264.9</u>	cm	
Overall Length	<u>181.6</u>	inches	x 2.54	=	<u>476.5</u>	cm	
Maximum Width	<u>69.3</u>	inches	x 2.54	=	<u>176.0</u>	cm	
Curb Weight	<u>3,224</u>	pounds	x 0.4536	=	<u>1,462.4</u>	kg	
Average Track	<u>59.4</u> <u>58.7</u>	<u>59.0</u>	inches	x 2.54	=	<u>149.99</u>	cm
Front Overhang	_____	inches	x 2.54	=	_____	cm	
Rear Overhang	_____	inches	x 2.54	=	_____	cm	
Undeformed End Width	_____	inches	x 2.54	=	_____	cm	
Engine Size: cyl/disl.	_____	cc	x 0.001	=	V6 <u>3.0</u>	L	
V6 VG-30 E engine 12-valve	<u>181</u>	CID	x 0.0164	=	<u>3.0</u>	L	

Shipping Weight	3,139	For VE 3000 E Engine
4-speed Automatic	100	24 Valve
	<u>3,239</u>	Shipping Weight
Curb Weight	3,165	4-speed Auto
5-speed manual	59	5-speed Manual
	<u>3,224</u>	<u>3,165</u>
		59

SPECIAL CRASH INVESTIGATION ADDENDUM

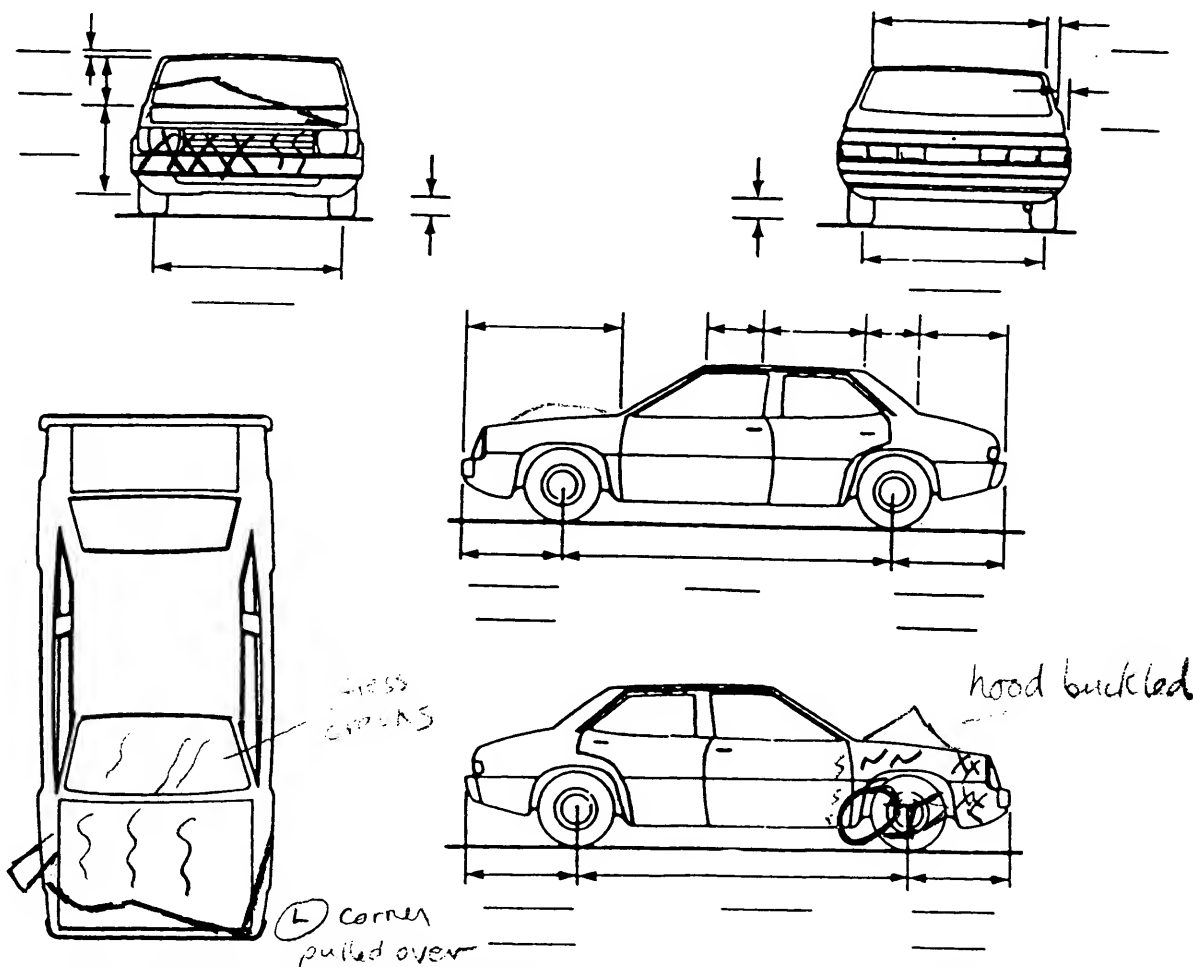
Submodel Designation: {specify} UNK Color: {specify} Brown Repair Cost: \$ UNKTransmission: {circle} Automatic | Manual Speed: 3-speed | 4-speed | 5-speed | Other:Steering: {circle} Power-assisted | Manual Type: rack-and-pinion | worm-and-gear | Other
{please describe}: UNKBrakes: {circle} Power-assisted | Manual Type: 4-wheel disc | 4-wheel drum | 4-wheel hydraulic
| front disc, rear drum | Other:Observed Defects: {specify} none per photosFleet Type: {circle} Private vehicle | Rental vehicle | Leased vehicle | Commercial vehicle | Other
{please describe}:

VEHICLE DAMAGE SKETCH

TIRE - WHEEL DAMAGE a. Rotation physically restricted RF <u>1</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> b. Tire deflated RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		ORIGINAL SPECIFICATIONS Wheelbase <u>265</u> cm Overall Length <u>477</u> cm Maximum Width <u>176</u> cm Curb Weight <u>1452</u> kg Average Track <u>150</u> cm Front Overhang <u>UNK</u> cm Rear Overhang <u>UNK</u> cm Undeformed End Width <u>UNK</u> cm Engine Size: cyl./displ. <u>V6/3.0L</u> L		WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only) RF \pm <u>20</u> ° LF \pm <u>0</u> ° RR \pm <u>0</u> ° LR \pm <u>0</u> ° Within \pm 5 degrees
TYPE OF TRANSMISSION <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic <u>UNK</u> END SHIFT \geq 10 CM <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		DRIVE WHEELS <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD Approximate Cargo Weight <u>UNK</u> kg		

MEASUREMENTS IN CENTIMETERS

SKETCH FROM PHOTOS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

BRANHAM AUTOMOBILE REFERENCE BOOK-FOREIGN CAR SECTION

NISSAN MOTOR CO., LTD,

Type of Body Pass. Cap.	Model	Wheel Base	Total Length	Ship. Wt.	Tax H.P.	P.O.E. West Coast	P.O.E. East Coast
4-PS 2-door Sedan SE-R	22414	95.7"	170.3"	2518	18.39	14,599	14,599
Options Sentra: Destination Charges-\$380; Air Conditioning-(A01)-\$995; Driver-Side Airbag(N03)-\$575; XE Value Pkg(F09)-\$1000; SE/SE R Value Pkg(F09)-\$1300; Power Sunroof(J01)-\$825; Metallic Paint(E09)-\$100; Antilock Braking System(B07)-\$700; Cruise Control(S05)-\$230; Calif Emission(C01)-\$150; AM/FM Stereo w/cassette(H01)-\$600; Fleet Package-\$1260; Fleet Pkg(W01)-\$1260; Power Steering(S02)-\$500							
1994 ALTIMA FWD 4 cyl 2.4 liter, DOHC SMPFI Gas Engine(16 valve)							
Bore & Stroke 3.50"x3.78"; Tax H.P. 19.6; SAE H.P. 150@5600; Torque 154@4400; 145 cu.in., 2.4 liter							
Man. Trans. 5-speed; EPA Mileage Estimate 24/30							
4-PS 4-door Sedan XE	15653	103.1"	180.5"	2829	19.6	13,739	13,739
4-PS 4-door Sedan GXE	15754	103.1"	180.5"	2898	19.6	14,859	14,859
4-PS 4-door Sedan SE	15954	103.1"	180.5"	2902	19.6	18,179	18,179
Auto. Trans. 4-speed; EPA Mileage Estimate 21/29							
4-PS 4-door Sedan XE w/Cruise Control	15614	103.1"	180.5"	2907	19.6	14,699	14,699
4-PS 4-door Sedan GXE	15714	103.1"	180.5"	2972	19.6	15,684	15,684
4-PS 4-door Sedan SE	15914	103.1"	180.5"	2988	19.6	19,004	19,004
4-PS 4-door Sedan GLE	15814	103.1"	180.5"	2990	19.6	19,179	19,179
Options Altima: Destination Charges-\$380; Antilock Braking System(B07)-\$995; ABS w/Viscous Ltd. Slip(B10)-\$1195; Cruise Control(S07)-\$230; Leather Trim Package(X03)-\$1000; XE Option Pkg(F02)-\$1825; Power Sunroof(J01)-\$825; GXE Value Option Pkg(F09)-\$1000; Calif. Emissions(C01)-\$150							
1994 MAXIMA FWD V6 cyl 3.0 liter, SOHC SMPFI Gas Engine(VG30E)(12 valve)							
Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 160@5200; Torque 182@2800; 181 cu.in., 3.0 liter							
Auto. Trans. 4-speed; EPA Mileage Estimate 19/26							
4-PS 4-door Sedan GXE	08414	104.3"	187.6"	3139	28.24	22,199	22,199
1994 MAXIMA FWD V6 cyl 3.0 liter, DOHC SMPFI Gas Engine(VE30DE)(24 valve)							
Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 190@5600; Torque 190@4000; 181 cu.in., 3.0 liter							
Man. Trans. 5-speed; EPA Mileage Estimate 21/26							
4-PS 4-door Sedan SE	08254	104.3"	187.6"	3165	28.24	23,299	23,299
Auto. Trans. 4-speed; EPA Mileage Estimate 19/25							
4-PS 4-door Sedan SE	08214	104.3"	187.6"	3224	28.24	24,234	24,234
Options Maxima: Destination Charges-\$380; Luxury Pkg(V01)-\$2595; GXE Leather Trim Pkg(X03)-\$1025; Antilock Braking System(B07)-\$995; Pearlglow Paint(E07)-\$350; Calif. Emissions(C01)-\$150; SE Leather Trim Package(X03)-\$1425; Sunroof(J01)-\$875; CD Player(H07)-\$400							
1994 240SX FWD 4 cyl 2.4 liter, DOHC SMPFI Gas Engine(KA24DE)(16 valve)							
Bore & Stroke 3.50"x3.78"; Tax H.P. 19.6; SAE H.P. 155@5600; Torque 160@4400; 146 cu.in., 2.4 liter							
Auto. Trans. 4-speed; EPA Mileage Estimate 21/26							
4-PS 2-door Convertible	26814	97.4"	178.0"	2770	19.6	23,969	23,969
Options Sentra 240SX: Destination Charges-\$380; Air Conditioning(A01)-\$995; Calif Emissions(C01)-\$150							
1994 300ZX RWD V6 cyl 3.0 liter, DOHC Gas Engine(24 valve)							
Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 222@6400; Torque 198@4800; 181 cu.in., 3.0 liter							
Man. Trans. 4-speed; EPA Mileage Estimate 18/24							
2-PS 2-door Coupe	64054	96.5"	169.5"	3299	28.24	33,699	33,699
2-PS 2-door Coupe w/t bar	64154	96.5"	169.5"	3349	28.24	35,179	35,179
4-PS 2-door 2+2 Coupe w/t bar	64254	101.2"	178.0"	3413	28.24	36,489	36,489
2-PS 2-door Convertible(Cloth)	64654	96.5"	169.5"	3446	28.24	39,604	39,604
2-PS 2-door Convertible(Leather)	64754	96.5"	169.5"	3446	28.24	40,879	40,879
Auto. Trans. 4-speed; EPA Mileage Estimate 18/24							
2-PS 2-door Coupe w/t bar	64114	96.5"	169.5"	3378	28.24	36,129	36,129
4-PS 2-door 2+2 Coupe w/t bar	64214	101.2"	178.0"	3442	28.24	37,439	37,439
2-PS 2-door Coupe Convertible(Cloth)	64614	96.5"	169.5"	3475	28.24	40,604	40,604
2-PS 2-door Coupe Convertible(Leather)	64714	96.5"	169.5"	3475	28.24	41,879	41,879
1994 300ZX V6 cyl 3.0 liter, DOHC SMPFI Gas Engine(24 valve)							
Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 300@6400; Torque 283@3600; 181 cu.in., 3.0 liter							
Man. Trans. 4-speed; EPA Mileage Estimate 18/24							
2-PS 2-door Coupe w/t bar Turbo	64854	96.5"	169.5"	3517	28.24	40,099	40,099
Auto. Trans. 4-speed; EPA Mileage Estimate 18/24							
2-PS 2-door Coupe w/t bar Turbo	64814	96.5"	169.5"	3554	28.24	42,124	42,124
Options Sentra 300SX: Destination Charges-\$380; Leather Package-\$1075 (2+2)-\$1275; Pearl Glow Paint-\$350; Calif. Emissions-\$150							
1994 PATHFINDER RWD V6 cyl 3.0 liter, SOHC, SMPFI Gas Engine(VG30E)(12 valve)							
Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 153@4800; Torque 180@4000; 181 cu.in., 3.0 liter							
Man. Trans. 5-speed; EPA Mileage Estimate 15/18							
5-PS 4-door Sport Utility XE 2WD	09254	104.3"	171.9"		28.24	19,429	19,429
5-PS 4-door Sport Utility XE 4WD	09654	104.3"	171.9"	3885	28.24	21,099	21,099

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) – Vehicle Number

Noncollision

- (31) Overturn — rollover (excludes end-over-end)
(32) Rollover—end-over-end
(33) Fire or explosion
(34) Jackknife
(35) Other intraunit damage (specify):

(36) Noncollision injury

(38) Other noncollision (specify):

(39) Noncollision – details unknown

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
(42) Tree (> 10 cm in diameter)
(43) Shrubbery or bush
(44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
(51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
(52) Pole or post (> 30 cm in diameter)
(53) Pole or post (diameter unknown)

(54) Concrete traffic barrier

(55) Impact attenuator

(56) Other traffic barrier (includes guardrail)
(specify):

- (57) Fence

(58) Wall

(59) Building

(60) Ditch or culvert

(61) Ground

(62) Fire hydrant

(63) Curb

(64) Bridge

(68) Other fixed object (specify):

(69) Unknown fixed object

Collision with Nonfixed Object

- (70) Passenger car, light truck, van, or other vehicle not in-transport
(71) Medium/heavy truck or bus not in-transport
(72) Pedestrian
(73) Cyclist or cycle
(74) Other nonmotorist or conveyance

(75) Vehicle occupant

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(79) Object fell from vehicle in-transport

(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER *est. per photos*

[illegible]

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>02</u>	6. <u>12</u>	7. <u>F</u>	8. <u>Z</u>	9. <u>E</u>	10. <u>W</u>	11. <u>02</u>

Second Highest Delta "V"

12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L 21. C₁ C₂ C₃ C₄ C₅ C₆ 22. ±D

_____ + _____

_____ - _____

Second Highest Delta "V"

23. L 24. C₁ C₂ C₃ C₄ C₅ C₆ 25. ±D

_____ + _____

_____ - _____

26. Undeformed End Width
(Coded when highest severity
impact is an end plane impact.) 999
_____ Code to the nearest centimeter
(250) 250 centimeters or more
(998) No highest severity end plane impact
(999) Unknown

27. Direct Damage Width
(For highest severity impact) 999
_____ Code to the nearest centimeter
(250) 250 centimeters or more
(999) Unknown

28. Original Wheelbase 265
_____ Code to the nearest
centimeter
(650) 650 centimeters or more
(999) Unknown
104 . 3 inches X 2.54 = 265 centimeters

29. Original Average Track Width 15φ
_____ Code to the
nearest centimeter
(185) 185 centimeters or more
(999) Unknown
59 . φ inches X 2.54 = 15φ centimeters

NASS CDS GENERAL VEHICLE FORM: VEHICLE #2



GENERAL VEHICLE FORM

BEST AVAILABLE

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 9628
3. Vehicle Number 02

VEHICLE IDENTIFICATION

4. Vehicle Model Year 90
Code the last two digits of the model year
(99) Unknown
5. Vehicle Make (specify): NUMMI/Chev. GEO 20
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown
6. Vehicle Model (specify): Prizm 032
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(999) Unknown
7. Body Type 04
Note: Applicable codes may be found on
the back of this page.
8. Vehicle Identification Number
1Y1SK5162LZ - - - - -
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Left justify; Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nines
9. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify):
(9) Unknown

OFFICIAL RECORDS

10. Police Reported Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown
11. Police Reported Travel Speed 999
Code to the nearest kmph (NOTE: 000 means
less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

___ mph X 1.6093 = ___ kmph

12. Speed Limit 056
(000) No statutory limit
Code posted or statutory speed limit in kmph
(999) Unknown

35 mph X 1.6093 = 56 kmph
13. Police Reported Alcohol Presence For Driver 0
(0) No alcohol present
(1) Yes alcohol present
(7) Not reported
(8) No driver present
(9) Unknown
14. Alcohol Test Result For Driver 96
Code actual value (decimal implied
before first digit—0.xx)
(95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) Unknown

Source: _____
15. Police Reported Other Drug Presence For Driver 0
(0) No other drug(s) present
(1) Yes other drug(s) present
(7) Not reported
(8) No driver present
(9) Unknown
16. Other Drug Specimen Test Result For Driver 0
(0) No specimen test given
(1) Drug(s) not found in specimen
(2) Drug(s) found in specimen, (specify):

(3) Specimen test given, results unknown or not
obtained
(8) No driver present
(9) Unknown if specimen test given
17. Driver's Zip Code _____
(00001) Driver not a resident of U.S. or territories

Code actual 5-digit zip code
(99998) No driver present Per ZIP
(99999) Unknown Directory
18. Driver's Race/Ethnic Origin 9
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(7) Other (specify):

(8) No driver present
(9) Unknown

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____

- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 4,536$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 4,536$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 4,536$ kgs GVWR)
- (23) Van based motorhome ($\leq 4,536$ kgs GVWR)
- (24) Van based school bus ($\leq 4,536$ kgs GVWR)
- (25) Van based other bus ($\leq 4,536$ kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 4,536$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)
- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 4,536$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks ($> 4,536$ kgs GVWR)

- (60) Step van ($> 4,536$ kgs GVWR)
- (61) Single unit straight truck ($4,536$ kgs $<$ GVWR $\leq 8,845$ kgs)
- (62) Single unit straight truck ($8,845$ kgs $<$ GVWR $\leq 11,793$ kgs)
- (63) Single unit straight truck ($> 11,793$ kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction φ
 (0) Non-interchange area and non-junction
 (1) Interchange area related

Non-Interchange junctions

- (2) Intersection related
 (3) Driveway, alley access related
 (4) Other junction (specify) _____

- (5) Unknown type of junction _____

- (9) Unknown

20. Trafficway Flow φ
 (0) Not physically divided (two way traffic)
 (1) Divided trafficway-median strip without positive barrier
 (2) Divided trafficway-median strip with positive barrier
 (3) One way traffic
 (9) Unknown

21. Number Of Travel Lanes 2
 (1) One
 (2) Two
 (3) Three
 (4) Four
 (5) Five
 (6) Six
 (7) Seven or more
 (9) Unknown

22. Roadway Alignment 3
 (1) Straight
 (2) Curve right
 (3) Curve left
 (9) Unknown

23. Roadway Profile 1
 (1) Level
 (2) Uphill grade (> 2%)
 (3) Hill crest
 (4) Downhill grade (> 2%)
 (5) Sag
 (9) Unknown

24. Roadway Surface Type 2
 (1) Concrete
 (2) Bituminous (asphalt)
 (3) Brick or block
 (4) Slag, gravel, or stone
 (5) Dirt
 (8) Other (specify): _____
 (9) Unknown

25. Roadway Surface Condition 2

- (1) Dry
 (2) Wet
 (3) Snow or slush
 (4) Ice
 (5) Sand, dirt, or oil
 (8) Other (specify): _____
 (9) Unknown

26. Light Conditions 1

- (1) Daylight
 (2) Dark
 (3) Dark, but lighted
 (4) Dawn
 (5) Dusk
 (9) Unknown

27. Atmospheric Conditions 1

- (0) No adverse atmospheric-related driving conditions
 (1) Rain
 (2) Sleet/hail
 (3) Snow
 (4) Fog
 (5) Rain and fog
 (6) Sleet and fog
 (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): _____
 (9) Unknown

28. Traffic Control Device 6

- (0) No traffic control(s)
 (1) Traffic control signal (not RR crossing)

Regulatory

- (2) Stop sign
 (3) Yield sign
 (4) School zone sign
 (5) Other regulatory sign (specify): _____

- (6) Warning sign (not RR crossing) Curve
 (7) Unknown sign
 (8) Miscellaneous/other controls including RR controls (specify): _____

- (9) Unknown

29. Traffic Control Device Functioning 2

- (0) No traffic control device
 (1) Traffic control device not functioning (specify): _____
 (2) Traffic control device functioning properly
 (9) Unknown

PRECRASH DRIVER RELATED DATA

30. Driver's Distraction/Inattention To Driving (Prior To Recognition Of Critical Event) 99
- (00) No driver present
- (01) Attentive or not distracted
- (02) Looked but did not see
- Distractions*
- (03) By other occupant(s), (specify): _____
- (04) By moving object in vehicle (specify): _____
- (05) While talking or listening to cellular phone (specify location and type of phone): _____
- (06) While dialing cellular phone (specify location and type of phone): _____
- (07) While adjusting climate controls
- (08) While adjusting radio, cassette, CD (specify): _____
- (09) While using other device/controls integral to vehicle (specify): _____
- (10) While using or reaching for device/object brought into vehicle (specify): _____
- (11) Sleepy or fell asleep
- (12) Distracted by outside person, object, or event (specify): _____
- (13) Eating or drinking
- (14) Smoking related
- (97) Distracted/inattentive, details unknown
- (98) Other, distraction (specify): _____
- (99) Unknown

31. Pre-Event Movement (Prior to Recognition of Critical Event) 99
- (00) No driver present
- (01) Going straight
- (02) Decelerating in traffic lane
- (03) Accelerating in traffic lane
- (04) Starting in traffic lane
- (05) Stopped in traffic lane
- (06) Passing or overtaking another vehicle
- (07) Disabled or parked in travel lane
- (08) Leaving a parking position
- (09) Entering a parking position
- (10) Turning right
- (11) Turning left
- (12) Making a U-turn
- (13) Backing up (other than for parking position)
- (14) Negotiating a curve
- (15) Changing lanes
- (16) Merging
- (17) Successful avoidance maneuver to a previous critical event *Per statement to Police*
- (97) Other (specify): _____
- (99) Unknown

32. Critical Precrash Event 1**THIS VEHICLE LOSS OF CONTROL DUE TO:**

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): _____
- (09) Unknown cause of control loss

THIS VEHICLE TRAVELLING

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (18) This vehicle decelerating
- (19) Unknown travel direction

OTHER MOTOR VEHICLE IN LANE

- (50) Other vehicle stopped
- (51) Traveling in same direction with lower steady speed
- (52) Traveling in same direction while decelerating
- (53) Traveling in same direction with higher speed
- (54) Traveling in opposite direction
- (55) In crossover
- (56) Backing
- (59) Unknown travel direction of other motor vehicle in lane

OTHER MOTOR VEHICLE ENCROACHING INTO LANE

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

PEDESTRIAN, PEDALCYCLIST, OR OTHER NONMOTORIST

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
- (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): _____
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

OBJECT OR ANIMAL

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): _____
- (99) Unknown

National Accident Sampling System-Crashworthiness Data System: General Vehicle Form

Page 4

33. Attempted Avoidance Maneuver 46

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify): _____

(99) Unknown

34. Pre-Impact Stability 1

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): _____

(9) Precrash stability unknown

35. Pre-Impact Location 1

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

36. Accident Type 50

(Note: Applicable codes on back of this page)

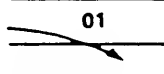

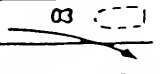
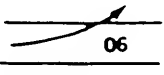
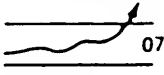
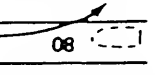
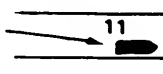


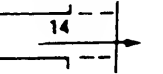
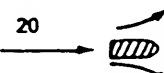
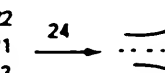
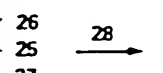
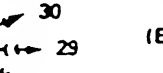
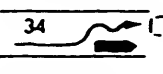
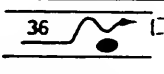
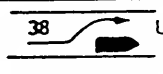
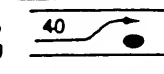
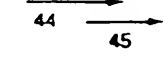




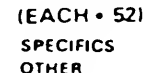

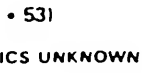
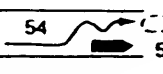
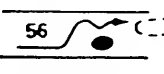

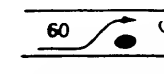

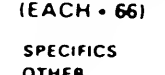

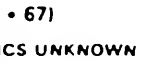
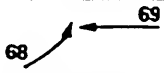
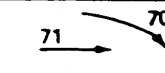
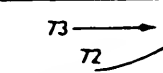

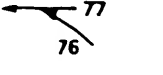
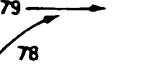
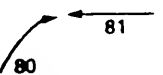
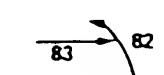
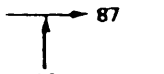
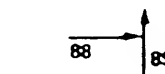

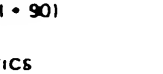
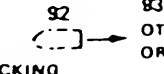



(00) No impact

Code the number of the diagram that best describes the accident circumstance

(98) Other accident type (specify): _____

(99) Unknown

STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 25, 26, 27	 24 DECEL. 29, 30, 31	 26 AVOID COLLISION WITH VEH.	(EACH • 32) SPECIFICS OTHER (EACH • 33) SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER (EACH • 43) SPECIFICS UNKNOWN
	F Sideswipe Angle	 44 LATERAL MOVE	 46 LATERAL MOVE	 48 LATERAL MOVE	 49 LATERAL MOVE	(EACH • 48) SPECIFICS OTHER (EACH • 49) SPECIFICS UNKNOWN
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	 51 LATERAL MOVE	 52 LATERAL MOVE	 53 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER (EACH • 53) SPECIFICS UNKNOWN
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER (EACH • 63) SPECIFICS UNKNOWN
	I Sideswipe Angle	 64 LATERAL MOVE	 66 LATERAL MOVE	 68 LATERAL MOVE	 70 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER (EACH • 67) SPECIFICS UNKNOWN
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 71 INITIAL SAME DIRECTIONS	 73 INITIAL SAME DIRECTIONS	 75 INITIAL SAME DIRECTIONS	(EACH • 74) SPECIFICS OTHER (EACH • 75) SPECIFICS UNKNOWN
	K Turn Into Path	 77 TURN INTO SAME DIRECTION	 79 TURN INTO SAME DIRECTION	 81 TURN INTO OPPOSITE DIRECTIONS	 83 TURN INTO OPPOSITE DIRECTIONS	(EACH • 84) SPECIFICS OTHER (EACH • 85) SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 87 STRAIGHT PATHS	 89 STRAIGHT PATHS	 90 STRAIGHT PATHS	 91 STRAIGHT PATHS	(EACH • 90) SPECIFICS OTHER (EACH • 91) SPECIFICS UNKNOWN
VI Miscellaneous	M Backing Etc	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	 98 OTHER ACCIDENT TYPE	 99 UNKNOWN ACCIDENT TYPE	00 No Impact

OCCUPANT RELATED

37. Driver Presence in Vehicle 1
(0) Driver not present
(1) Driver present
(9) Unknown
38. Number of Occupants This Vehicle 1
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown
39. Number of Occupant Forms Submitted 1

AIR BAG RELATED

40. Is this an AOPS Vehicle? 1
(0) No (includes unknown)
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 1
(0) Not equipped or not available
(1) No air bags deployed
Single Air Bag Vehicle
(2) Driver air bag deployed
(3) Driver air bag, unknown if deployed
Multiple Air Bag Vehicle
(4) Driver side only deployed
(5) Passenger side only deployed
(6) Driver and passenger side deployed
(7) Driver and passenger side unknown if deployed
(8) Air bag(s) deployed, details unknown
(9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 1
(0) Not equipped with an "other" air bag
(1) Deployed during accident (as a result of impact)
(2) Deployed inadvertently just prior to accident
(3) Deployed, details unknown
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(5) Unknown if deployed
(7) Nondeployed
(9) Unknown

Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1.50
Code weight to nearest 10 kilograms.
(045) Less than 454 kilograms
(612) 6,124 kilograms or more
(999) Unknown
2.321 lbs X .4536 = 1.053 kgs

Source: _____

44. Vehicle Cargo Weight 9.990
Code weight to nearest 10 kilograms.
(000) Less than 5 kilograms
(454) 4,536 kilograms or more
(999) Unknown
_____ lbs X .4536 = _____ kgs

Source: _____

ROLLOVER DATA

45. Rollover 1
(00) No rollover (no overturning)
Rollover (primarily about the longitudinal axis)
(01-16) Code the number of quarter turns
(17) Rollover, 17 or more quarter turns (specify): _____
(98) Rollover--end-over-end (i.e., primarily about the lateral axis)
(99) Rollover (overturn), details unknown
46. Rollover Initiation Type 1
(00) No rollover
(01) Trip-over
(02) Flip-over
(03) Turn-over
(04) Climb-over
(05) Fall-over
(06) Bounce-over
(07) Collision with another vehicle
(08) Other rollover initiation type specify): _____
(98) Rollover--end-over-end
(99) Unknown rollover initiation type
47. Location of Rollover Initiation 1
(0) No rollover
(1) On roadway
(2) On shoulder--paved
(3) On shoulder--unpaved
(4) On roadside or divided trafficway median
(8) Rollover--end-over-end
(9) Unknown
48. Rollover Initiation Object Contacted 1
(Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 1
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify): _____
(6) Non-contact rollover forces (specify): _____
(8) Rollover--end-over-end
(9) Unknown
50. Direction of Initial Roll 1
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(8) Rollover--end-over-end
(9) Unknown roll direction

OVERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) φ
52. Rear Override/Underride (this Vehicle) φ
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

*Override (see specific CDC)**(Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49))*

- (1) 1st CDC
- (2) 2nd CDC
- (3) Other not automated CDC (specify): _____

*Underride (see specific CDC)**(Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49))*

- (4) 1st CDC
- (5) 2nd CDC
- (6) Other not automated CDC (specify): _____

- (7) Medium/heavy truck or bus override (of any configuration)
- (9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value

- (996) Non-horizontal impact
- (997) Noncollision
- (998) Impact with object
- (999) Unknown

53. Heading Angle For This Vehicle 3 4 φ
54. Heading Angle For Other Vehicle 1 7 φ

RECONSTRUCTION DATA

55. Towed Trailing Unit φ
- (0) No towed unit
- (1) Yes—towed trailing unit
- (9) Unknown
56. Documentation of Trajectory Data for This Vehicle φ
- (0) No
- (1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) φ
- (0) Not collision (for highest delta V) with tree or pole
- (1) Not damaged
- (2) Cracked/sheared
- (3) Tilted < 45 degrees
- (4) Tilted ≥ 45 degrees
- (5) Uprooted tree
- (6) Separated pole from base
- (7) Pole replaced
- (8) Other (specify): _____
- (9) Unknown

ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) φ φ

(00) No vehicle inspection

Delta V Calculated

- (01) Reconstruction program-damage only routine
- (02) Reconstruction program-damage and trajectory routine
- (03) Missing vehicle algorithm

Delta V Not Calculated

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

- (05) Rollover
- (06) Other non-horizontal forces
- (07) Sideswipe type damage
- (08) Severe override
- (09) Yielding object
- (10) Overlapping damage
- (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify): _____

(98) Other, (specify): _____

COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

Highest

999

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (999) Unknown

60. Longitudinal Component of Delta V

Highest

+ 999
- 999

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: _000 means greater than
 -0.5 kmph and less than +0.5 kmph)
 (±160) ±159.5 kmph and above
 (_999) Unknown

61. Lateral Component of Delta V

Highest

+ 999
- 999

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: _000 means greater than -0.5 kmph and
 less than +0.5 kmph)
 (±160) ±159.5 kmph and above
 (_999) Unknown

62. Energy Absorption

Highest

999.9 00

____ Nearest 100 joules (highest)

____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
 (9997) 999,650 joules or more
 (9999) Unknown

63. Impact Speed

Highest

999

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means
 less than 0.5 kmph)
 (160) 159.5 kmph and above
 (998) Trajectory algorithm not run
 (999) Unknown

DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

4

- (0) No reconstruction
 (1) Collision fits model — results appear reasonable
 (2) Collision fits model — results appear high
 (3) Collision fits model — results appear low
 (4) Borderline reconstruction — results appear reasonable

OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

999

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means
 less than 0.5 kmph)
 (160) 159.5 kmph and above
 (999) Unknown

ESTIMATED DELTA V

66. Estimated Highest Delta V (Researcher Determined)

(0) Reconstruction Delta V coded

Estimated Delta V

- (1) Less than 10 kmph
- (2) ≥ 10 kmph but < 25 kmph
- (3) ≥ 25 kmph but < 40 kmph
- (4) ≥ 40 kmph but < 55 kmph
- (5) ≥ 55 kmph

Other estimates of damage severity

- (6) Minor
- (7) Moderate
- (8) Severe
- (9) Unknown

4**INSPECTION TYPE**

67. Type of Vehicle Inspection

- (0) No inspection
- (1) Vehicle fully repaired-no damage evident
- (2) Partial inspection (specify): _____
- (3) Complete inspection

0**DELTA V EVENT NUMBER**

68. Delta V Event Number

_____ Code the accident event sequence number that resulted in the Delta V that has been coded above for this vehicle

(99) Unknown

1

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM**

1. Primary Sampling Unit Number		<u>1</u> <u>0</u>
2. Case Number - Stratum		<u>9</u> <u>6</u> <u>2</u> <u>8</u>
3. Vehicle Number		<u>0</u> <u>2</u>

VEHICLE IDENTIFICATION

VIN 1Y1SK5162LZ- - - - - Model Year 90
Vehicle Make (specify): NUMMI GEO Vehicle Model (specify): PRIZM 4dr

LOCATOR

Locate the end of the damage with respect to the vehicle's damaged center point or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
1	F-(R) half	(R) corner inward	F-(R) corner

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase 95.7 inches x 2.54 = 243.1 cm
 Overall Length 170.7 inches x 2.54 = 433.6 cm
 Maximum Width 65.2 inches x 2.54 = 165.8 cm
 Curb Weight 2,321 pounds x 0.4536 = 1,052 kg
 Average Track ^{56.3}_{55.5} 55.9 inches x 2.54 = 142.0 cm
 Front Overhang inches x 2.54 = cm
 Rear Overhang inches x 2.54 = cm
 Undeformed End Width inches x 2.54 = cm
 Engine Size: cyl/dspl. cc x 0.001 = 4cyl 1.6 L
97 CID x 0.0164 = 1.6 L

Specs. per

SPECIAL CRASH INVESTIGATION ADDENDUM

Submodel Designation: {specify} UNK Color: {specify} white Repair Cost: \$ UNK

Transmission: {circle} Automatic | Manual Speed: 3-speed | 4-speed | 5-speed | Other:

Steering: {circle} Power-assisted | Manual Type: rack-and-pinion | worm-and-gear | Other

{please describe}: UNKBrakes: {circle} Power-assisted | Manual Type: 4-wheel disc | 4-wheel drum | 4-wheel hydraulic
| front disc, rear drum | Other:Observed Defects: {specify} none per photosFleet Type: {circle} Private vehicle | Rental vehicle | Leased vehicle | Commercial vehicle | Other
{please describe}:

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE
a. Rotation physically restricted b. Tire deflated
 RF 1
 LF 2
 RR 2
 LR 2

 RF 2
 LF 2
 RR 2
 LR 2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☐ AutomaticEND SHIFT \geq 10 CM☐ Yes ☒ No

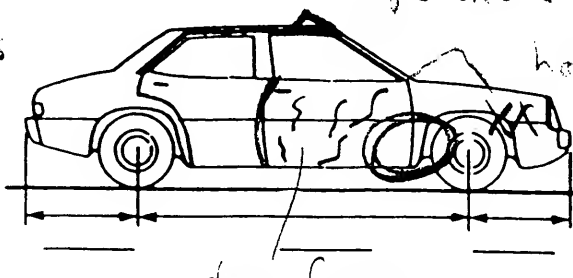
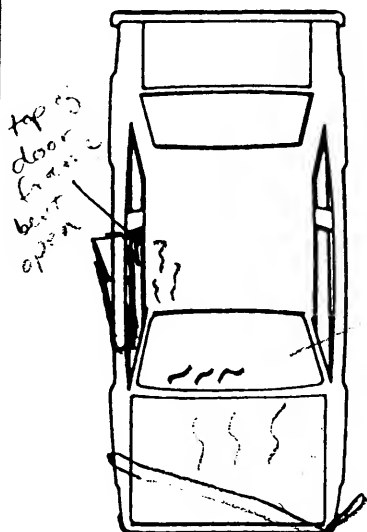
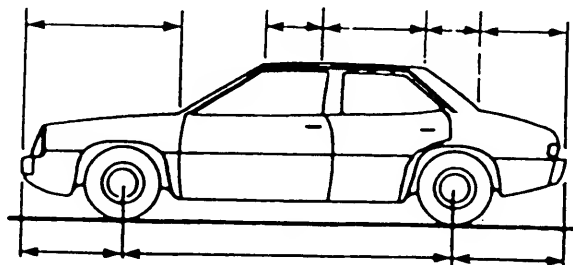
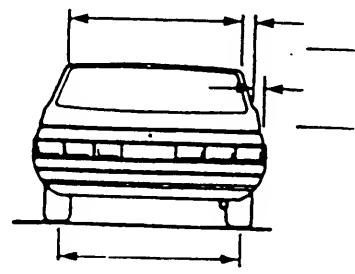
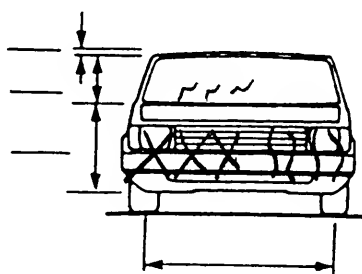
ORIGINAL SPECIFICATIONS

 Wheelbase 243 cm
 Overall Length 434 cm
 Maximum Width 166 cm
 Curb Weight 1053 kg
 Average Track 142 cm
 Front Overhang UNK cm
 Rear Overhang UNK cm
 Undeformed End Width UNK cm
 Engine Size: cyl./displ. 4 cyl/1.6 L
WHEEL STEER ANGLES
(For locked front wheels or displaced rear axles only)
 RF \pm 5°
 LF \pm 0°
 RR \pm 0°
 LR \pm 0°
Within \pm 5 degrees

DRIVE WHEELS

☒ FWD ☐ RWD ☐ 4WDApproximate Cargo Weight UNK kg

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

BRANHAM AUTOMOBILE REFERENCE BOOK

CHEVROLET Division, General Motors Corp.,

Type of Body Pass. Cap.	Model	O'r-n Length	Ship. Wt.	Cu. Ft. Vol.	Factory List Pr.	Factory Del'd Pr.
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1990 GEO METRO Series, FWD, 1.0 L., L3 (61") EFI Gas Eng. (LP2) (Isuzu Motors) (Sept., 1989)
 Bore & Stroke 2.91" x 3.03; Tax. H.P. 10.16; 1.0 Liter

4-Ps. 2-dr. H.B. Coupe	1MR08	146.06"	1,541	275.0	\$6,950.00	\$7,285.00
4-Ps. 2-dr. Convertible	1MR67	146.06"	NA	275.0	NA	NA
4-Ps. 4-dr. H.B. Sedan	1MR68	150.0"	1,614	275.0	7,250.00	7,585.00
4-Ps. 2-dr. H.B. Coupe, Auto. Tr.	1HR08	146.06"	1,560	275.0	6,695.00	7,030.00
4-Ps. 2-dr. Convertible, Auto. Tr.	1HR67	146.06"	NA	275.0	NA	NA
4-Ps. 4-dr. H.B. Sedan, Auto. Tr.	1HR68	150.0"	1,637	275.0	7,415.00	7,750.00

GEO METRO XFI, FWD, 89.17" w.b., 5-Spd. Manual Trans.; Sedan 93.11" w.b.

4-Ps. 2-dr. H.B. Coupe	1MS08	146.06"	1,537	275.0	\$5,995.00	\$6,330.00
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GEO METRO Options: Transmission: Auto, 23 lbs.; SNA; Air Conditioning, 18.3 lbs.; \$690; Defogger, 0.10 lbs.; SNA; Radio, 2.7 lbs.; SNA.

GEO PRIZM Series, FWD, 1.8 L., 4-Cyl. (97") MPFI Gas Eng. (L01) DOHC (Isuzu Motors)

Bore & Stroke 3.2" x 3.0"; Tax. H.P. 16.38; P.D. 97 cu. in., 1.8 Liter

GEO PRIZM FWD—95.7" w.b.

5-Ps. 4-dr. N.B. Sedan, Man. Tr.	1SK19	170.7"	2,248	338.0	\$9,660.00	\$9,995.00
5-Ps. 4-dr. N.B. Sedan, Auto. Tr.	1SK19	170.7"	2,288	338.0	10,080.00	10,415.00
5-Ps. 4-dr. H.B. Sedan, Man. Tr.	1SK68	170.7"	2,291	338.0	9,960.00	10,295.00
5-Ps. 4-dr. H.B. Sedan, Auto. Tr.	1SK68	170.7"	2,331	338.0	10,380.00	10,715.00

GEO PRIZM GSI, FWD—95.7" w.b.

5-Ps. 4-dr. N.B. Sedan, Man. Tr.	1SL19	170.7"	2,366	338.0	\$12,235.00	\$12,570.00
5-Ps. 4-dr. N.B. Sedan, Auto. Tr.	1SL19	170.7"	2,406	338.0	13,010.00	13,345.00
5-Ps. 4-dr. H.B. Sedan, Man. Tr.	1SL68	170.7"	2,430	338.0	12,620.00	12,955.00
5-Ps. 4-dr. H.B. Sedan, Auto. Tr.	1SL68	170.7"	2,470	338.0	13,310.00	13,645.00

GEO PRIZM Options: Air Conditioning, 46.3 lbs.; Power Door Locks, 4.4 lbs.; Power Windows, 14.6 lbs.; Power Steering, 19.8 lbs.; Sun Roof, 31.3 lbs.; Cruise Control, 6.2 lbs.; (Auto. Transmission) 39.7 lbs.; (Tilt Wheel) 2.9 lbs.; Radio, AM/FM, 3.1 lbs.

GEO STORM Series—FWD, 1.6 L., L-4 (97") MPFI (L07) Gas Eng. (Isuzu Motors)

Bore & Stroke 3.15" x 3.11"; Tax. H.P. 19.85; P.D. 97 cu. in., 1.6 Liter

GEO STORM FWD—96.5" w.b.

4-Ps. 2-dr. H.B. Coupe, Man. Tr.	1RF77	163.4"	2,189	322.0	\$10,390.00	\$10,705.00
4-Ps. 2-dr. H.B. Coupe, Auto. Tr.	1RF77	163.4"	2,229	322.0	10,935.00	11,250.00

GEO STORM GSI FWD, 96.5" w.b.

4-Ps. 2-dr. H.B. Coupe, Man. Tr.	1RT77	163.4"	2,299	322.0	\$11,650.00	\$11,965.00
4-Ps. 2-dr. H.B. Coupe, Auto. Tr.	1RT77	163.4"	2,339	322.0	12,350.00	12,665.00

GEO STORM Options: Air Conditioning, 18.4 lbs.; \$690; Radios: AM/FM, 1.4 lbs.; w/Cassette, 1.7 lbs.

GEO TRACKER Series, 4WD, 1.6 L., L4 (97") TBI EFI Gas Eng. (L55) (Suzuki)

Bore & Stroke 2.95" x 3.54"; Tax. H.P. 13.924; P.D. 97 cu. in., 1.6 Liter

GEO TRACKER FWD—86.61" w.b.

2-Ps. 2-dr. Convertible, Man. Tr.	J10367	142.52"	2,155	344.0	\$11,795.00	\$12,110.00
2-Ps. 2-dr. Convertible, Auto. Tr.	J10367	142.52"	2,195	344.0	NA	NA
2-Ps. 2-dr. Hardtop, Manual Tr.	J10316	142.52"	2,188	344.0	NA	NA
2-Ps. 2-dr. Hardtop, Auto. Tr.	J10316	142.52"	2,228	344.0	NA	NA

GEO TRACKER Options: Auto. Trans., 39.7 lbs.; Defogger, 0.2 lbs.; Tinted Glass; Air Conditioning, 35.7 lbs.

LUMINA Series, FWD, 2.5 L., L4 (151") TBI Gas Eng. (LR8) (GMC Engine)

Bore & Stroke 4.1" x 3.0"; Tax. H.P. 26.9; P.D. 151 cu. in., 2.5 Liter

LUMINA FWD—107.5" w.b., Auto. Trans.

6-Ps. 2-dr. N.B. Coupe, 3-Spd. Auto.	1WL27	198.4"	2,985	439.0	\$12,115.00	\$12,615.00
6-Ps. 4-dr. N.B. Sedan, 3-Spd. Auto.	1WL69	198.4"	3,066	435.0	12,315.00	12,815.00

LUMINA EURO Series, FWD, 3.1 L., 6-Cyl. (191") MPFI Gas Eng. (LH0) (GMC)

Bore & Stroke 3.6" x 3.3"; Tax. H.P. 31.10; P.D. 191 cu. in., 3.1 Liter

6-Ps. 2-dr. N.B. Coupe, 3-Spd. Auto.	1WN27	198.4"	3,080	439.0	\$14,040.00	\$14,515.00
6-Ps. 2-dr. N.B. Sedan, 3-Spd. Auto.	1WN69	198.4"	3,167	435.0	14,240.00	14,715.00
6-Ps. 2-dr. N.B. Coupe, 4-Spd. Auto.	1WN27/ZV8	198.4"	3,080	439.0	14,240.00	14,715.00
6-Ps. 2-dr. N.B. Sedan, 4-Spd. Auto.	1WN69/ZV8	198.4"	3,167	435.0	14,440.00	14,915.00

LUMINA Options: Engine: 3.1 L., V6 (191") MPFI Gas (GMC), 54.3 lbs.; \$660; Transmission, 4-Spd. Auto., 35.2 lbs.; \$200; Split Seat, 10.6 lbs.; SNA; Side Door Lock, Coupe, 4 lbs.; \$190; Sedan, 6.2 lbs.; \$230; Power Windows, Coupe, 5.3 lbs.; \$ Equip. Group 1; Air Conditioning, 36.5 lbs.; \$805; Stereo Radio, 3.9 lbs.; \$140.

LUMINA APV Series: Cargo Van—3.1 L., V6 (189") TBI Gas Eng. (LG6) (GMC)

Bore & Stroke 3.5" x 4.4"; Tax. H.P. 29.4; P.D. 189 cu. in., 3.1 Liter, 109.8" w.b.

2-Ps. 3-dr. Cargo Van, 3-Spd. Auto.	1UM05	194.2"	3,146	542.0	\$13,995.00	\$14,495.00
7-Ps. 3-dr. Van, 3-Spd. Auto., Y91	1UM06	194.2"	3,345	542.0	15,745.00	16,245.00

LUMINA APV VAN Options: Seating: 6-Pass, 55.1 lbs.; \$510; 7-Pass, 222 lbs.; \$660; 6-Way Power Locks, 6 lbs.; \$255; Power Window, 4.4 lbs.; \$ Equip. Group #1; Defogger, .6 lb.; \$160; Air Conditioning, 45.2 lbs.; \$805; Level Control, 12.8 lbs.; \$170; AM/FM Stereo, 1.5 lbs.; \$140; AM/FM Seek & Scan, 2.0 lbs.; \$256; Power Seat, 6-Way, \$270.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) – Vehicle Number

Noncollision

- (31) Overturn — rollover (excludes end-over-end)
(32) Rollover—end-over-end
(33) Fire or explosion
(34) Jackknife
(35) Other intraunit damage (specify):

- (36) Noncollision injury

- (38) Other noncollision (specify):

- (39) Noncollision – details unknown

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
(42) Tree (> 10 cm in diameter)
(43) Shrubbery or bush
(44) Embankment

- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
(51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
(52) Pole or post (> 30 cm in diameter)
(53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier

- (55) Impact attenuator

- (56) Other traffic barrier (includes guardrail)
(specify):

- (57) Fence

- (58) Wall

- (59) Building

- (60) Ditch or culvert

- (61) Ground

- (62) Fire hydrant

- (63) Curb

- (64) Bridge

- (68) Other fixed object (specify):

- (69) Unknown fixed object

Collision with Nonfixed Object

- (70) Passenger car, light truck, van, or other vehicle not in-transport

- (71) Medium/heavy truck or bus not in-transport

- (72) Pedestrian

- (73) Cyclist or cycle

- (74) Other nonmotorist or conveyance

- (75) Vehicle occupant

- (76) Animal

- (77) Train

- (78) Trailer, disconnected in transport

- (79) Object fell from vehicle in-transport

- (88) Other nonfixed object (specify):

- (89) Unknown nonfixed object

- (98) Other event (specify):

- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

[illegible]

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>01</u>	6. <u>12</u>	7. <u>F</u>	8. <u>2</u>	9. <u>E</u>	10. <u>W</u>	11. <u>04</u>

Second Highest Delta "V"

12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L 21. C₁ C₂ C₃ C₄ C₅ C₆ 22. ±D

+

-

Second Highest Delta "V"

23. L 24. C₁ C₂ C₃ C₄ C₅ C₆ 25. ±D

+

-

26. Undeformed End Width

(Coded when highest severity impact is an end plane impact.)

_____ Code to the nearest centimeter

(250) 250 centimeters or more

(998) No highest severity end plane impact

(999) Unknown

999

27. Direct Damage Width

(For highest severity impact)

_____ Code to the nearest centimeter

(250) 250 centimeters or more

(999) Unknown

999

28. Original Wheelbase

_____ Code to the nearest centimeter

(650) 650 centimeters or more

(999) Unknown

95.7 inches X 2.54 = 243 centimeters

243

29. Original Average Track Width

_____ Code to the nearest centimeter

(185) 185 centimeters or more

(999) Unknown

55.9 inches X 2.54 = 142 centimeters

142

NASS CDS INTERVIEW FORM:
CASE VEHICLE DRIVER



INTERVIEW FORM (A)

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM1. Primary Sampling Unit Number 10

Interviewee(s) Role or Name(s):

2. Case Number - Stratum 9628Son of driver (Not present3. Vehicle Number 01Phone number: at hospitals

Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.

If the driver was not the person interviewed, was an appointment made for a follow-up interview?

DRIVER'S DESCRIPTION OF ACCIDENT EVENTS

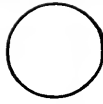
Has no knowledge of crash or
driver's circumstances.

Will sign release

Obituary indicates driver had been play golf
earlier in the afternoon.

OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS**SPECIFIC QUESTIONS TO ASK INTERVIEWEE**

ACCIDENT DIAGRAM



NORTH

Use this diagram to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.

CRASH DATA INFORMATION

IF POSSIBLE OBTAIN THIS INFORMATION FROM THE DRIVER:

SOURCE OF INFORMATION:	<input type="checkbox"/> Driver <input type="checkbox"/> Other occupant <input checked="" type="checkbox"/> Relative/friend
TRAVEL DIRECTION?	<input type="checkbox"/> North <input checked="" type="checkbox"/> South <input type="checkbox"/> East <input type="checkbox"/> West (Or where were they coming from or going to?) <i>obituary</i>
LANE?	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> Other <i>PAR</i> Note: lane 1 is the right curb lane
ROAD CONDITION?	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Snow <input type="checkbox"/> Slush <input type="checkbox"/> Ice <input type="checkbox"/> Sand, dirt, oil <input type="checkbox"/> Other (specify) <i>PAR</i>
WEATHER CONDITIONS? (Check all that apply)	<input type="checkbox"/> No adverse conditions <i>PAR</i> <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Fog <input type="checkbox"/> Sleet <input type="checkbox"/> Hail <input type="checkbox"/> Snow <input type="checkbox"/> Other (specify)
SIGN OR SIGNAL PRESENT? (check all that apply) <i>double yellow lane lines photos</i>	<input type="checkbox"/> Traffic control signal (includes flashing beacons, lane control signals, and green / amber / red signal) <input type="checkbox"/> Stop sign <input type="checkbox"/> Yield sign <input type="checkbox"/> School zone sign <input type="checkbox"/> Other regulatory sign (No "U" turn, left turn only, wrong way, etc.) specify: _____ <input type="checkbox"/> Warning sign (Winding road sign, stop ahead, intersection signs, etc.) specify: _____ <input type="checkbox"/> Miscellaneous control (including railroad controls) specify: _____ <input type="checkbox"/> None <input type="checkbox"/> Unknown
WAS THE CONTROL FUNCTIONING PROPERLY?	<input checked="" type="checkbox"/> No traffic control device present <input type="checkbox"/> Not functioning properly (includes defaced, badly worn, covered with snow, rotated etc.) specify: _____ <input type="checkbox"/> Functioning properly <i>photos</i> <input type="checkbox"/> Unknown
SPEED BEFORE THE IMPACT? (in mph)	<input type="checkbox"/> Stopped <input type="checkbox"/> 11-20 <input type="checkbox"/> 31-40 <input type="checkbox"/> 51-60 <input type="checkbox"/> 70+ <input type="checkbox"/> 1-10 <input type="checkbox"/> 21-30 <input type="checkbox"/> 41-50 <input type="checkbox"/> 61-70 <input checked="" type="checkbox"/> Unknown
BEFORE IMPACT, INTENDING TO ... ? (check all that apply)	<input checked="" type="checkbox"/> Go straight <input type="checkbox"/> Stopped <input type="checkbox"/> Turn left <input type="checkbox"/> Turn right <input type="checkbox"/> Slow down <input type="checkbox"/> Accelerate <input type="checkbox"/> Back up <input type="checkbox"/> Change lanes to right <input type="checkbox"/> Other (specify): <i>PAR</i> <input type="checkbox"/> Change lanes to left
CONTROL LOSS DUE TO WEATHER OR MECHANICAL PROBLEMS?	<input checked="" type="checkbox"/> No <i>PAR</i> <input type="checkbox"/> Unknown <input type="checkbox"/> Yes (describe)
AVOIDANCE ACTIONS?	<input type="checkbox"/> None <input type="checkbox"/> Braking with lock-up <input type="checkbox"/> Accelerating <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Braking without lock-up <input type="checkbox"/> Steering left <input type="checkbox"/> Other- specify: <input type="checkbox"/> Releasing brakes <input type="checkbox"/> Steering right
LOCATION OF VEHICLE AT TIME OF IMPACT?	<input checked="" type="checkbox"/> Original travel lane <input type="checkbox"/> Different travel lane <input type="checkbox"/> In intersection <input type="checkbox"/> Off roadway to right <input type="checkbox"/> Off roadway to left <input type="checkbox"/> Other (specify): _____ <i>PAR</i>
SPEED AT THE TIME OF IMPACT? (in mph)	<input type="checkbox"/> Stopped <input type="checkbox"/> 11-20 <input type="checkbox"/> 31-40 <input type="checkbox"/> 51-60 <input type="checkbox"/> 70+ <input type="checkbox"/> 1-10 <input type="checkbox"/> 21-30 <input type="checkbox"/> 41-50 <input type="checkbox"/> 61-70 <input checked="" type="checkbox"/> Unknown
DESCRIBE ALL THE IMPACTS to the vehicle and how this vehicle moved to its stopped position, after the collision?	

VEHICLE INFORMATION**ROLLOVER DATA**

DID THIS VEHICLE ROLL OVER DURING THE CRASH?

☐ YES -- ASK THE FOLLOWING QUESTIONS☒ NO -- SKIP TO "FIRE DATA" BELOW☐ UNKNOWN -- SKIP TO "FIRE DATA" BELOW

ROLLOVER BEGAN

☐ On roadway ☐ On shoulder ☐ On roadside or median
☐ Unknown

ROLLOVER CAUSE?

☐ Other vehicle (specify vehicle number) _____
☐ Contact to object (specify): _____
☐ Other cause (specify): _____
☐ Unknown

DIRECTION OF VEHICLE ROLL?

☐ Toward the right (passenger side)
☐ Toward the left (driver side)
☐ End-over-end
☐ Unknown

NUMBER OF TURNS

____ Number of QUARTER TURNS ☐ Unknown
____ Number of COMPLETE TURNS
PLANE IN CONTACT WITH
GROUND AT FINAL REST?
☐ Left side ☐ Top
☐ Right side ☐ Wheels
☐ Unknown
FIRE DATA

DID THIS VEHICLE EXPERIENCE A FIRE?

☐ YES -- ASK THE FOLLOWING QUESTIONS☒ NO -- SKIP THIS SECTION☐ UNKNOWN -- SKIP THIS SECTIONFIRE STARTED, OR SMOKE
WAS FIRST SEEN ...
☐ Under the hood ☐ In the trunk/cargo area
☐ Behind the instrument panel ☐ Under the vehicle
☐ In the passenger compartment ☐ From other involved vehicle
☐ Unknown
FIRE START WITH THE
ELECTRICAL SYSTEM?☐ No ☐ Unknown☐ Yes (specify):FIRE START WITH THE FUEL
SYSTEM?☐ No ☐ Unknown☐ Yes -- specify Which part of the fuel system may have been involved?
☐ Fuel tank
☐ Fuel lines
☐ Engine compartment (specify component if known)
☐ Unknown

Describe any additional rollover or fire information here:

ADDITIONAL VEHICLE INFORMATION



YEAR, MAKE AND MODEL?	Year: 19 <u>94</u> Make: <u>NISSAN</u> Model: <u>MAXIMA</u>
PREVIOUS OR POST-CRASH DAMAGE?	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe: <input checked="" type="checkbox"/> Unknown
DOORS OR HATCH OPEN DURING THE CRASH?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> LF <input type="checkbox"/> RF <input type="checkbox"/> LR <input type="checkbox"/> RR <input type="checkbox"/> HATCH <input type="checkbox"/> OTHER _____ <u>photos</u> <input type="checkbox"/> Unknown
WINDOWS BREAK DURING THE CRASH?	<input checked="" type="checkbox"/> No Check all that apply <input type="checkbox"/> Yes <input type="checkbox"/> WS <input type="checkbox"/> LF <input type="checkbox"/> RF <input type="checkbox"/> LR <input type="checkbox"/> RR <input type="checkbox"/> BL <input type="checkbox"/> Roof <input type="checkbox"/> Other <input type="checkbox"/> Unknown <u>photos</u>
WINDOW PRECRASH STATUS	<div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> WS <input checked="" type="checkbox"/> LF <input checked="" type="checkbox"/> RF <input checked="" type="checkbox"/> LR <input checked="" type="checkbox"/> RR </div> <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> BL <input checked="" type="checkbox"/> Roof <input checked="" type="checkbox"/> Other </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> "O" = open "C" = Closed </div> <div style="display: flex; justify-content: space-between;"> "P" = partially open "U" = Unknown </div>
GLOVE COMPARTMENT DOOR OPEN DURING THE CRASH?	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe: <input checked="" type="checkbox"/> Unknown
CARGO IN THE VEHICLE?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Yes - describe: Approximate weight - _____ pounds
VEHICLE MILEAGE	<u>53,915</u> miles <input type="checkbox"/> Unknown <u>PATR</u>
IF VEHICLE HAS NOT BEEN INSPECTED	Current location of the vehicle: _____ <u>Police impound /</u> Contact person: _____
Detail any notes, questions to ask interviewee (i.e., rescue personnel damage to vehicle) or directions to vehicle location:	

SPECIAL CRASH INVESTIGATION ADDENDUM: DRIVER INFORMATION

Do you recall the type of development in the area of the crash?	<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Undeveloped <input type="checkbox"/> School <input type="checkbox"/> Other: _____
What were the weather conditions at the time of the crash?	<input type="checkbox"/> Clear (no clouds, no precipitation) <input type="checkbox"/> Cloudy (partially cloudy, no precipitation) <input type="checkbox"/> Overcast (full cloud cover, no precipitation) <input type="checkbox"/> Precipitating <input type="checkbox"/> Unknown
What was the type of precipitation?	<input type="checkbox"/> No precipitation <input type="checkbox"/> Unknown <input type="checkbox"/> Raining <input type="checkbox"/> Freezing rain <input type="checkbox"/> Sleet <input type="checkbox"/> Snowing <input type="checkbox"/> Hailing
What was the condition of the road surface?	<input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Snowy, slushy <input type="checkbox"/> Icy <input type="checkbox"/> Other (e.g., sand, dirt, oil on surface, etc.) <input type="checkbox"/> Unknown
How would you describe the amount of traffic at the time of the crash?	<input type="checkbox"/> Heavy <input type="checkbox"/> Moderate <input type="checkbox"/> Light <input type="checkbox"/> No other traffic present
What is your occupation?	<input type="checkbox"/> Professional <input type="checkbox"/> Technical <input type="checkbox"/> Government official <input type="checkbox"/> Management <input type="checkbox"/> Proprietors <input type="checkbox"/> Sales <input type="checkbox"/> Clerical <input type="checkbox"/> Craftsman and foreman <input type="checkbox"/> Service worker <input type="checkbox"/> Student <input type="checkbox"/> Farmers and farm-managers <input type="checkbox"/> Farm labors and foreman <input type="checkbox"/> Private household worker <input type="checkbox"/> Housewife <input type="checkbox"/> Other: _____
How long have you driven this vehicle?	Years: _____ Months: _____
How many miles do you think that you have driven it in the last 12-month period?	Miles: _____
How often do you drive this particular roadway?	<input type="checkbox"/> Daily <input type="checkbox"/> Twice weekly <input type="checkbox"/> Once weekly <input type="checkbox"/> Twice monthly <input type="checkbox"/> Once monthly <input type="checkbox"/> Very infrequently <input type="checkbox"/> First time on road
Where were you coming from just prior to the crash?	<input type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: _____
Where were you intending to go when the crash occurred?	<input type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: _____

OCCUPANT DATA QUESTIONS

HOW MANY PEOPLE WERE IN THE VEHICLE AT THE TIME OF THE CRASH?

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
SEATING POSITION? Front Left (FL) Second Left (2L) Front Middle (FM) Second Middle (2M) Front Right (FR) Second Right (2R) Third Left (3L) Other (SPECIFY in block) Third Middle (3M) Third Right (3R)	FRONT LEFT	None	
SEX, HEIGHT, WEIGHT, AND AGE? CIRCLE DRIVER'S RACE: <input checked="" type="radio"/> White <i>photo w/ obituary</i> <input type="radio"/> Black <input type="radio"/> American Indian <input type="radio"/> Eskimo or Aleut <input type="radio"/> Asian or Pacific Islander Other (specify): Unknown	<input checked="" type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months ____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: ____ WEIGHT: ____ AGE: ____ DRIVER OF HISPANIC ORIGIN? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> U	<input type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months ____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: ____ WEIGHT: ____ AGE: ____ 	<input type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months ____ <input type="checkbox"/> F - Unk. if pregnant HEIGHT: ____ WEIGHT: ____ AGE: ____ 
OCCUPANT POSTURE A) Kneeling or standing on seat B) Lying on or across seat C) Kneeling, standing or sitting in front of seat D) Sitting sideways, turned to side or back E) Sitting on console F) Lying back in reclined position G) Other (specify) H) Unknown	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input checked="" type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown Indicate all letters that apply and describe if other than above
FEET AND HANDS/ARMS LOCATION JUST PRIOR TO IMPACT <u>FEET</u> A) On floor or foot controls B) One or both on dash C) One or both on seat D) Other (specify) E) Unknown <u>HANDS / ARMS</u> F) Both hands on steering wheel G) One on wheel, other hand resting or adjusting a control (specify hand on wheel and control involved) H) Dialing a cellular phone (specify location and type of phone) I) Holding a cellular phone (specify location and type of phone) J) Bracing with one or both hands K) On lap L) One or both out of window (specify) M) Other (specify) N) Unknown	Indicate all letters that apply and further describe as needed unk	Indicate all letters that apply and further describe as needed	Indicate all letters that apply and further describe as needed

OCCUPANT DATA CONTINUED ON NEXT PAGE

OCCUPANT DATA QUESTIONS (continued)

	DRIVER	OCCUPANT # ____	OCCUPANT # ____																																																
BACK UP AGAINST THE SEAT BACK?	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown																																																
ADJUSTABLE SEAT TRACK, IF "YES" WHERE WAS THE TRACK PRIOR TO IMPACT?	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown																																																
ADJUSTABLE SEAT BACK, IF "YES" WHERE WAS THE BACK PRE AND POST IMPACT	<table border="0"> <tr> <td><u>PRE</u></td> <td><u>POST</u></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>	<u>PRE</u>	<u>POST</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<table border="0"> <tr> <td><u>PRE</u></td> <td><u>POST</u></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	<u>PRE</u>	<u>POST</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<table border="0"> <tr> <td><u>PRE</u></td> <td><u>POST</u></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	<u>PRE</u>	<u>POST</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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TILT STEERING COLUMN ADJUSTMENT PRIOR TO IMPACT

<input type="checkbox"/> Not adjustable	<input type="checkbox"/> Full up	<input type="checkbox"/> Between full up and center
<input type="checkbox"/> Center	<input type="checkbox"/> Between center and full down	
<input type="checkbox"/> Full down	<input checked="" type="checkbox"/> Unknown	

TELESCOPING STEERING COLUMN PRIOR TO IMPACT

<input type="checkbox"/> Not adjustable	<input type="checkbox"/> Full back	<input type="checkbox"/> Between full back and midpoint
<input type="checkbox"/> Midpoint	<input type="checkbox"/> Between midpoint and full forward	
<input type="checkbox"/> Full forward	<input checked="" type="checkbox"/> Unknown	

Did this vehicle have a cellular phone in it during the crash?

☐ No

☐ Yes - describe type:

(e.g., portable, mounted in vehicle, flip phone, etc.)

☐ Unknown

(Note to researcher: try to determine any driver distractions without implying fault)

Was the driver doing any of the following? (check all that apply - and specify)

- ☐ Talking to or listening to another occupant (specify):
- ☐ Was there a moving object in vehicle (specify):
- ☐ Talking or listening on a cellular phone (specify):
- ☐ Dialing a cellular phone (specify):
- ☐ Adjusting climate control (specify):
- ☐ Adjusting radio, CD or cassette player (specify):
- ☐ Using other device or object in vehicle (specify):
- ☐ Sleepy / asleep (specify):
- ☐ Distracted by outside person, object, or event (specify):
- ☐ Eating or drinking (specify):
- ☐ Smoking related (specify):
- ☐ Other (specify):
- ☐ Unknown

UNK

RESTRAINT INFORMATION

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
TYPE OF SEAT BELT AVAILABLE NOTE: If a belt is not available for a seat position -- describe reason	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:
DO BELTS MOVE ALONG A MOTORIZED TRACK FOR THIS SEAT? (i.e., 2 - point automatic belt)	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes *	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes *	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes *
* IF "YES", WERE THEY WORKING PROPERLY?	<input type="checkbox"/> Yes <input type="checkbox"/> No (describe) unk	<input type="checkbox"/> Yes <input type="checkbox"/> No (describe)	<input type="checkbox"/> Yes <input type="checkbox"/> No (describe)
ARE ANY BELTS ATTACHED TO THE DOOR? (i.e., 3 - point automatic belt)	<input type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes *	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes *
* IF "YES", DOES IT CROSS:	<input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both
OCCUPANT WEARING ANY SEATBELT?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown

SKIP THE FOLLOWING IF NO SEAT BELT WAS WORN

TYPE OF BELT WORN?	<input type="checkbox"/> Lap belt <input checked="" type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown	<input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Unknown
LAP BELT SITUATED?	<input type="checkbox"/> Low on lap <input type="checkbox"/> Across stomach <input type="checkbox"/> Other (specify): _____ <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Low on lap <input type="checkbox"/> Across stomach <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Low on lap <input type="checkbox"/> Across stomach <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
SHOULDER BELT SITUATED?	<input type="checkbox"/> Over shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify): _____ <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Over shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Over shoulder <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown

Describe any breaks, tears, or failures to any of the seat belts:

EJECTION, ENTRAPMENT, MOBILITY INFORMATION

	DRIVER	OCCUPANT # ____	OCCUPANT # ____				
ANY PART OF BODY THROWN OUTSIDE THE VEHICLE DURING THE CRASH?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.				
ANYONE PINNED IN THE VEHICLE?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ____ physically pinned ____ jammed doors ____ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment	<input type="checkbox"/> No <input type="checkbox"/> Yes ____ physically pinned ____ jammed doors ____ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment	<input type="checkbox"/> No <input type="checkbox"/> Yes ____ physically pinned ____ jammed doors ____ fire, etc. <input type="checkbox"/> Unknown Detail any entrapment				
HOW DID OCCUPANT(S) EXIT THE VEHICLE?	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious, or not oriented to time or place <input type="checkbox"/> Removed due to perceived serious injuries <input type="checkbox"/> Exited with some assistance <input checked="" type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious, or not oriented to time or place <input type="checkbox"/> Removed due to perceived serious injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious, or not oriented to time or place <input type="checkbox"/> Removed due to perceived serious injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown				
Further describe any ejection, entrapment, or mobility information here: <table border="0"> <tr> <td>How did occupant(s) depart the crash scene?</td> <td> <input checked="" type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify) </td> <td> <input type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify) </td> <td> <input type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify) </td> </tr> </table>				How did occupant(s) depart the crash scene?	<input checked="" type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify)	<input type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify)	<input type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify)
How did occupant(s) depart the crash scene?	<input checked="" type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify)	<input type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify)	<input type="checkbox"/> Ambulance <input type="checkbox"/> Police or Tow vehicle <input type="checkbox"/> Relative (specify) <input type="checkbox"/> Friend (specify) <input type="checkbox"/> Other (specify)				

AIR BAG INFORMATION

WAS THIS VEHICLE EVER EQUIPPED WITH AN AIR BAG?

☒ YES (IF "YES" COMPLETE THIS SECTION)☐ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER SIDE FRONTAL	PASSENGER SIDE FRONTAL OCCUPANT # ____	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # ____
VEHICLE BEEN IN ANY PREVIOUS CRASHES? <input type="checkbox"/> NO <input type="checkbox"/> YES - continue to right <input checked="" type="checkbox"/> UNKNOWN - go to box below	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED
TYPE OF AIR BAG?	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown
PRIOR SERVICE ON THE AIR BAG SYSTEM?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
DID AIR BAG INFLATE DURING THIS CRASH?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No If "NO" was the wiring disconnected prior to the crash? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
WAS THIS PERSON WEARING ANY TYPE OF EYE-WEAR (EYE/ SUNGLASSES OR CONTACT LENSES) ANY JEWELRY, OR HAVE ANY OBJECTS IN MOUTH OR HAND?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Yes - Specify: <i>glasses</i>	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
WAS THE AIR BAG IN THIS POSITION CONTACTED BY ANOTHER OCCUPANT?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify: <i>no other occ.</i>	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:

Describe any additional information here:

CHILD SAFETY SEAT INFORMATION

WAS THERE A PERSON IN A CHILD SAFETY SEAT IN THIS VEHICLE?

☐ YES (IF "YES" COMPLETE THIS SECTION)☒ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
MAKE AND MODEL OF THE SAFETY SEAT?			
TYPE OF SEAT?		<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown
DIRECTION FACING PRIOR TO THE CRASH?		<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown
VEHICLE'S SEAT BELT USED TO HOLD THE SEAT IN PLACE?		<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
HOW WAS THE VEHICLE'S SEAT BELT SECURED TO THE CHILD SEAT?		<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
WHAT WAS THE CHILD SEAT EQUIPPED WITH AT TIME OF PURCHASE?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown
ANY OF THESE ADDED AFTER THEY OWNED THE SAFETY SEAT?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown

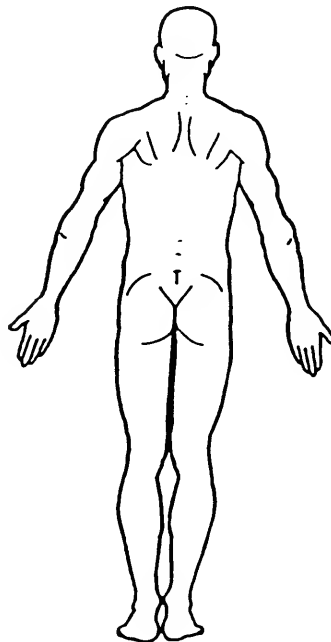
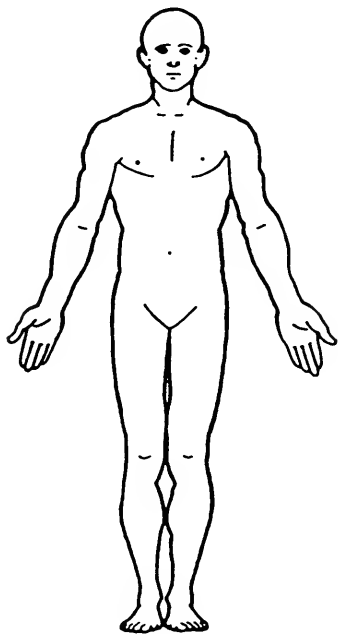
Describe any additional information here:

INJURY INFORMATION

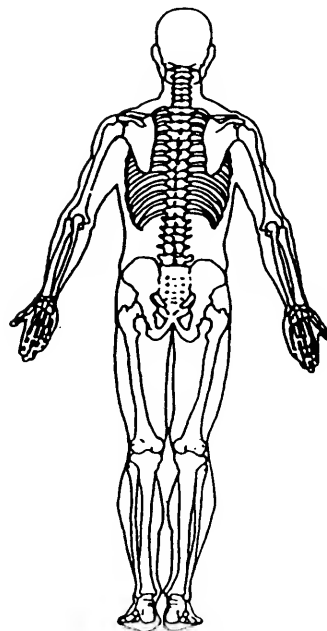
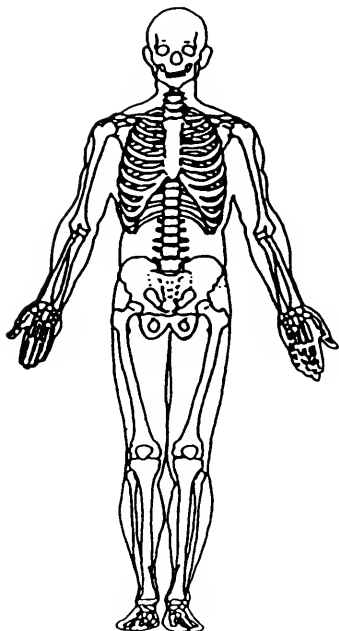
	DRIVER	OCCUPANT # _____	OCCUPANT # _____
WERE YOU INJURED? ▶ If "YES" go to manikin page and record injuries in detail ▶ If "NO" ask next questions	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
DID YOU HAVE ANY OF THE FOLLOWING: <i>(If any injuries are checked, go to the manikin page and record location, lesion, and source)</i>	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other - specify on manikin	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other - specify on manikin	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other - specify on manikin
TRANSPORTED DIRECTLY FROM ACCIDENT SCENE FOR TREATMENT?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
RECEIVE ANY MEDICAL TREATMENT? <i>(check all that apply)</i>	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown
HOSPITALIZED?	<input type="checkbox"/> No <input type="checkbox"/> Yes - # of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - # of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - # of days _____ <input type="checkbox"/> Unknown
TREATED AND RELEASED FROM THE EMERGENCY ROOM?	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
NAME OF MEDICAL TREATMENT FACILITY?			
RECEIVE ANY FOLLOW-UP TREATMENT?	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe any additional injuries diagnosed: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe any additional injuries diagnosed: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe any additional injuries diagnosed: _____ <input type="checkbox"/> Unknown
LOST ANY DAYS FROM WORK OR SCHOOL (COLLEGE) DUE TO THE CRASH?	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - # of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - # of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - # of days _____ <input type="checkbox"/> Unknown
IF REQUIRED: WILL YOU SIGN A MEDICAL RELEASE? * If not an in-person interview, make appointment to have release signed	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____

PSU Number 10Case Number—Stratum 9628Vehicle Number 01Occupant Number 01**INJURY DATA FROM INTERVIEWEE(S)**Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): 50n

SOFT TISSUE/INTERNAL INJURIES



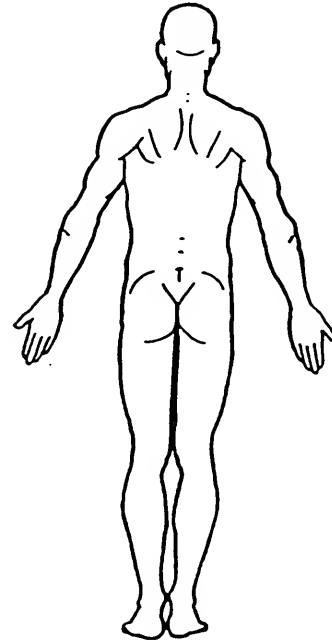
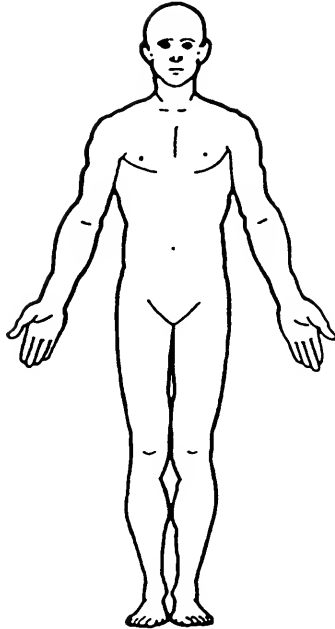
SKELETAL INJURIES



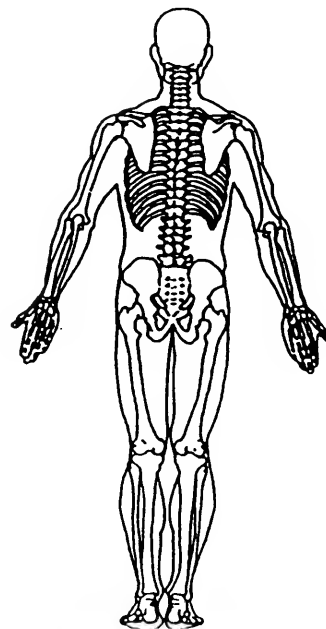
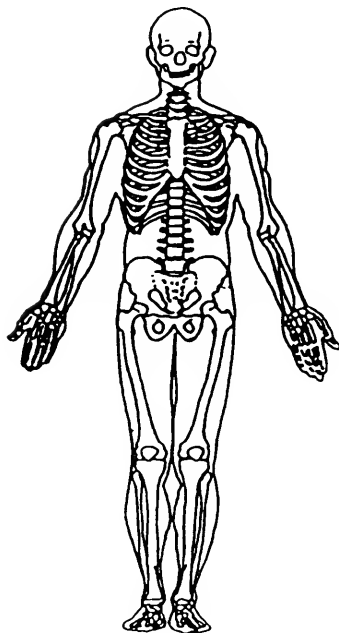
The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 10Case Number—Stratum 96Vehicle Number Occupant Number **INJURY DATA FROM INTERVIEWEE(S)**Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

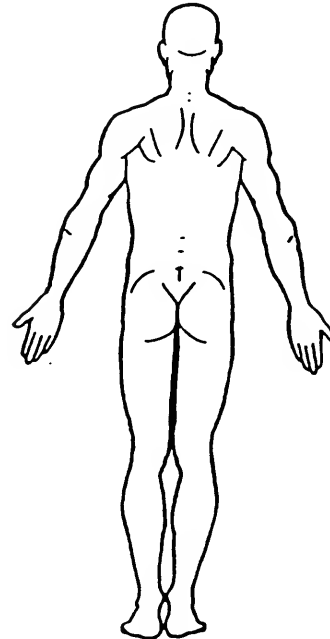
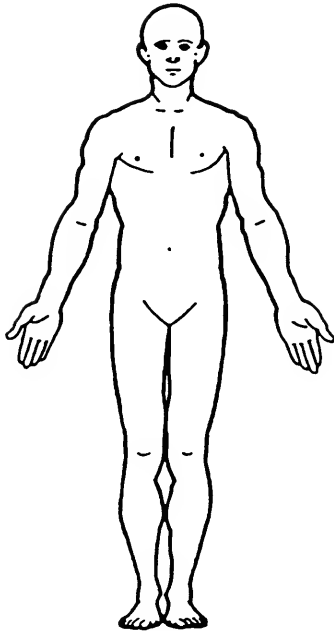
PSU Number 10Case Number—Stratum 96

Vehicle Number _____

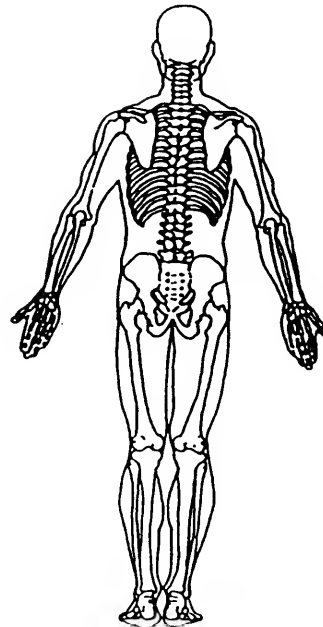
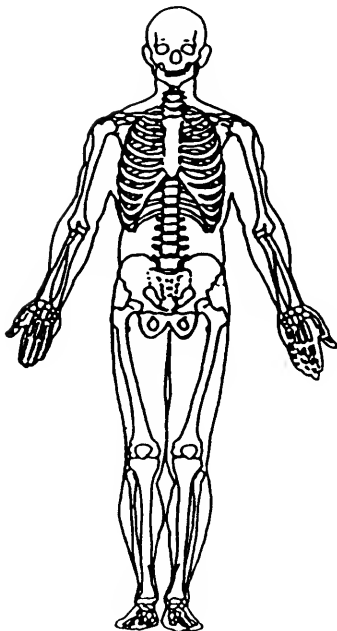
Occupant Number _____

INJURY DATA FROM INTERVIEWEE(S)Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

NASS CDS OCCUPANT ASSESSMENT FORM:
CASE VEHICLE DRIVER



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10

2. Case Number - Stratum 9628

3. Vehicle Number 01

4. Occupant Number 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 71

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex 1

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height 183

Code actual height to the nearest
centimeter.

(999) Unknown Per Medicals

___ inches X 2.54 = ___ centimeters

8. Occupant's Weight 080

Code actual weight to the nearest
kilogram.

(999) Unknown Per Medicals

___ pounds X .4536 = ___ kilograms

9. Occupant's Role 1

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position 11

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture 9

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with
another occupant or to look out a rear
window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in
front of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT**12. Ejection**

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

Φ

13. Ejection Area

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

Φ

14. Ejection Medium

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

Φ

15. Medium Status (Immediately Prior To Impact)

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

Φ

16. Entrapment

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

Φ

17. Occupant Mobility

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons
(specify): _____
- (9) Unknown

4

Per medicals

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 3
- (0) None available
 - (1) Belt removed/destroyed
 - (2) Shoulder belt
 - (3) Lap belt
 - (4) Lap and shoulder belt
 - (5) Belt available—type unknown
- Integral Belt Partially Destroyed*
- (6) Shoulder belt (lap belt destroyed/removed)
 - (7) Lap belt (shoulder belt destroyed/removed)
 - (8) Other belt (specify): _____
 - (9) Unknown
19. Manual (Active) Belt System Use 99
- (00) None used, not available, or belt removed/destroyed
 - (01) Inoperative (specify): _____
 - (02) Shoulder belt
 - (03) Lap belt
 - (04) Lap and shoulder belt
 - (05) Belt used—type unknown
 - (08) Other belt used (specify): _____
 - (12) Shoulder belt used with child safety seat
 - (13) Lap belt used with child safety seat
 - (14) Lap and shoulder belt used with child safety seat
 - (15) Belt used with child safety seat—type unknown
 - (18) Other belt used with child safety seat (specify): _____
 - (99) Unknown if belt used
20. Proper Use of Manual (Active) Belts 2
- (0) None used or not available
 - (1) Belt used properly
 - (2) Belt used properly with child safety seat
- Belt Used Improperly*
- (3) Shoulder belt worn under arm
 - (4) Shoulder belt worn behind back or seat
 - (5) Belt worn around more than one person
 - (6) Lap belt worn on abdomen
 - (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
 - (8) Other improper use of manual belt system (specify): _____
 - (9) Unknown
21. Manual (Active) Belt Failure Modes During Accident 9
- (0) No manual belt used or not available
 - (1) No manual belt failure(s)
 - (2) Torn webbing (stretched webbing not included)
 - (3) Broken buckle or latchplate
 - (4) Upper anchorage separated
 - (5) Other anchorage separated (specify): _____
 - (6) Broken retractor
 - (7) Combination of above (specify): _____
 - (8) Other manual belt failure (specify): _____
 - (9) Unknown
22. Manual Shoulder Belt Upper Anchorage Adjustment 0
- (0) No manual shoulder belt
 - (1) No upper anchorage adjustment for manual shoulder belt
- Adjustable shoulder Belt Upper Anchorage*
- (2) In full up position
 - (3) In mid position
 - (4) In full down position
 - (5) Position unknown
 - (9) Unknown if position has adjustable upper anchorage adjustment
23. Automatic (Passive) Belt System Availability/Function 1
- (0) Not equipped/not available
 - (1) 2 point automatic belts
 - (2) 3 point automatic belts
 - (3) Automatic belts - type unknown
- Non-functional*
- (4) Automatic belts destroyed or rendered inoperative
 - (9) Unknown
24. Automatic (Passive) Belt System Use 1
- (0) Not equipped/not available/destroyed or rendered inoperative
 - (1) Automatic belt in use
 - (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____
 - (3) Automatic belt use unknown
 - (9) Unknown
25. Automatic (Passive) Belt System Type 2
- (0) Not equipped/not available
 - (1) Non-motorized system
 - (2) Motorized system
 - (9) Unknown
26. Proper Use of Automatic (Passive) Belt System 9
- (0) Not equipped/not available/not used
 - (1) Automatic belt used properly
 - (2) Automatic belt used properly with child safety seat
- Automatic Belt Used Improperly*
- (3) Automatic shoulder belt worn under arm
 - (4) Automatic shoulder belt worn behind back
 - (5) Automatic belt worn around more than one person
 - (6) Lap portion of automatic belt worn on abdomen
 - (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
 - (8) Other improper use of automatic belt system (specify): _____
 - (9) Unknown
27. Automatic (Passive) Belt Failure Modes During Accident 9
- (0) Not equipped/not available/not in use
 - (1) No automatic belt failure(s)
 - (2) Torn webbing (stretched webbing not included)
 - (3) Broken buckle or latchplate
 - (4) Upper anchorage separated
 - (5) Other anchorage separated (specify): _____
 - (6) Broken retractor
 - (7) Combination of above (specify): _____
 - (8) Other automatic belt failure (specify): _____
 - (9) Unknown

POLICE REPORTED RESTRAINT USE**AIR BAG SYSTEM FUNCTION**28. Police Reported Belt Use 5

- (0) None used
- (1) Police did not indicate belt use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Automatic belt
- (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 2

- (0) No air bag available
- (1) Police did not indicate air bag availability/function
- (2) Deployed
- (3) Not deployed
- (4) Unknown if deployed
- (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [] Vehicle inspection
- [] Official injury data
- [] Driver/occupant interview
- ☒ Other (specify):

[] Unknown if belt used

photos for passive

30. Frontal Air Bag System Availability/Function 1
(This Occupant Position)

- (0) Not equipped/not available
- (1) Air bag
- Non-functional*
- (2) Air bag disconnected (specify):
- (3) Air bag not reinstalled
- (9) Unknown

31. Frontal Air Bag System Deployment 1
(This Occupant Position)

- (0) Not equipped/not available
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function Φ
(This Occupant Position)

- (0) Not equipped/not available
- (1) Air bag
- Non-functional*
- (2) Air bag disconnected (specify):
- (3) Air bag not reinstalled
- (9) Unknown

Specify type of "other" air bag present:

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) Φ

- (0) Not equipped with an "other" air bag
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

34. Are There Indications of Air Bag System Failure? 1
(This Occupant Position)

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 9

- (0) Not equipped/not available
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)
(3) One previous accident with deployment
(4) More than one previous accident with at least one deployment
(8) Previous accidents, unknown deployment status
(9) Unknown

36. Type of Air Bag 9

- (0) Not equipped/not available
(1) Original manufacturer installed system
(2) Retrofitted air bag
(3) Replacement air bag
(8) Unknown type of air bag
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 9

- (0) Not equipped/not available
(1) No prior maintenance
(2) Yes, prior maintenance (specify):
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

- (00) Not equipped/not available
Code the accident event sequence number that initiated the air bag deployment
(96) Deployed, unknown event
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available
(1) Highest delta V
(2) Second highest delta V
(3) Other non-coded delta V (specify):
(6) Deployed, unknown event
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact + 999
- 999

- (_000) Not equipped/not available
Code the value of the delta V for the impact that initiated the air bag deployment
(_996) Deployment, unknown longitudinal Delta V
(_997) Not deployed
(_998) Unknown if deployed
(_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 3

- (0) Not equipped/not available
(1) No
(2) Yes
(3) Deployed, unknown if flap(s) opened at designated tear points
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 3

- (0) Not equipped/not available
(1) No
(2) Yes (specify):
(3) Deployed, unknown if air bag module cover flap(s) damaged
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

43. Was There Damage To The Air Bag? 96

- (00) Not equipped/not available
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
(03) Cut
(04) Torn
(05) Holed
(06) Burned
(07) Abraded
(88) Other damage (specify):

- (95) Damaged, details unknown
(96) Deployed, unknown if damaged
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION** *continued*

44. Source of Air Bag Damage 9 6
 (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):
 (03) Object carried by occupant, (specify):
 (04) Adaptive/assistive controls, (specify):
 (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (88) Other damage source (specify):
 (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown
45. Was The Air Bag Tethered? 3
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):
 (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 3
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):
 (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1
 (0) Not equipped/not available
 (1) No *Only person in vehicle*
 (2) Yes (specify):
 (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 2
 (0) Not air bag equipped/air bag not available
 (1) No
 (2) Eyeglasses/sunglasses *Per medical*
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION

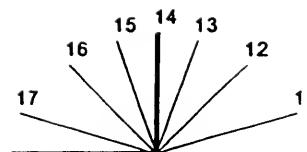
49. Head Restraint Type/Damage by Occupant at This Occupant Position 3
 (0) No head restraints *Per photos*
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):
 (9) Unknown
50. Seat Type (this Occupant Position) 0 1
 (00) Occupant not seated or no seat
 (01) Bucket *Per photos*
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1
 (0) Occupant not seated or no seat
 (1) Forward facing seat *Per photos*
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 9
 (0) Occupant not seated or no seat
 (1) Non-adjustable seat track
- Adjustable Seat Track*
 (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 99

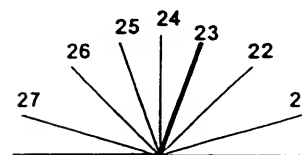
- (00) Occupant not seated or no seat
 (01) Not adjustable

Upright prior to impact

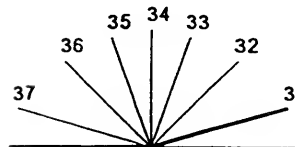
- (11) Moved to completely rearward position
 (12) Moved to rearward midrange position
 (13) Moved to slightly rearward position
 (14) Retained pre-impact position
 (15) Moved to slightly forward position
 (16) Moved to forward midrange position
 (17) Moved to completely forward position

*Slightly reclined prior to impact*

- (21) Moved to completely rearward position
 (22) Moved to rearward midrange position
 (23) Retained pre-impact position
 (24) Moved to upright position
 (25) Moved to slightly forward position
 (26) Moved to forward midrange position
 (27) Moved to completely forward position

*Completely reclined prior to impact*

- (31) Retained pre-impact position
 (32) Moved to rearward midrange position
 (33) Moved to slightly rearward position
 (34) Moved to upright position
 (35) Moved to slightly forward position
 (36) Moved to forward midrange position
 (37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) 9

- (0) Occupant not seated or no seat
 (1) No seat performance failure(s)
 (2) Seat adjusters failed
 (3) Seat back folding locks or "seat back" failed (specify): _____
 (4) Seat track/anchors failed
 (5) Deformed by impact of occupant
 (6) Deformed by passenger compartment intrusion, (specify): _____
 (7) Combination of above (specify): _____
 (8) Other (specify): _____
 (9) Unknown

CHILD SAFETY SEAT55. Child Safety Seat Make/Model Φ Φ Φ

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat Φ

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation Φ Φ

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage Φ Φ59. Child Safety Seat Shield Usage Φ Φ60. Child Safety Seat Tether Usage Φ ΦNote: Options below applicable to
Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES61. Injury Severity (Police Rating) 4

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 1

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

64. Hospital Stay 01

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 97

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP WORK HERE**VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

TO BE CODED BY THE ZONE CENTER

INJURY CONSEQUENCES

66. Time to Death

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

67. 1st Medically Reported Cause of Death

68. 2nd Medically Reported Cause of Death

69. 3rd Medically Reported Cause of Death

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

- (97) Other result (includes fatal ruled disease) (specify):

- (99) Unknown

70. Number of Recorded Injuries for This Occupant

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

TRAUMA DATA

71. Glasgow Coma Scale (GCS) Score (at Medical Facility)

- (00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

72. Was the Occupant Given Blood?

- (1) No - blood not given
(2) Yes - blood given
(specify units): 26 packed red blood cells
(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO_3

- (00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported, HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

Base Excess -7.3, largest base excess was -13.2

BELT USE DETERMINATION

74. Primary Source of Belt Use Determination

- (0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify): photos
(9) Unknown if belt used

**NASS CDS OCCUPANT INJURY FORM:
CASE VEHICLE DRIVER**



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	<u>10</u>	3. Vehicle Number	<u>01</u>
2. Case Number - Stratum	<u>9628</u>	4. Occupant Number	<u>01</u>

INJURY DATA											
Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.											
Source of Injury Data	Body Region	Type of Anatomic Structure	A.I.S. - 90 Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number	
Lacerated aortic arch	5. <u>2</u>	6. <u>4</u>	7. <u>2</u>	8. <u>02</u>	9. <u>16</u>	10. <u>5</u>	11. <u>4</u>	12. <u>170</u>	13. <u>2</u>	14. <u>1</u>	15. <u>00</u>
Laceration 2nd forehead	16. <u>2</u>	17. <u>2</u>	18. <u>9</u>	19. <u>06</u>	20. <u>02</u>	21. <u>1</u>	22. <u>7</u>	23. <u>057</u>	24. <u>2</u>	25. <u>1</u>	26. <u>99</u>
Contusion 3rd upper chest	27. <u>2</u>	28. <u>4</u>	29. <u>9</u>	30. <u>04</u>	31. <u>02</u>	32. <u>1</u>	33. <u>2</u>	34. <u>170</u>	35. <u>2</u>	36. <u>1</u>	37. <u>00</u>
Abrasion 4th shoulder	38. <u>3</u>	39. <u>7</u>	40. <u>9</u>	41. <u>02</u>	42. <u>02</u>	43. <u>1</u>	44. <u>2</u>	45. <u>152</u>	46. <u>1</u>	47. <u>1</u>	48. <u>00</u>
Abrasion 5th knee	49. <u>3</u>	50. <u>8</u>	51. <u>9</u>	52. <u>02</u>	53. <u>02</u>	54. <u>1</u>	55. <u>1</u>	56. <u>010</u>	57. <u>2</u>	58. <u>1</u>	59. <u>99</u>
6th	60. <u> </u>	61. <u> </u>	62. <u> </u>	63. <u> </u>	64. <u> </u>	65. <u> </u>	66. <u> </u>	67. <u> </u>	68. <u> </u>	69. <u> </u>	70. <u> </u>
7th	71. <u> </u>	72. <u> </u>	73. <u> </u>	74. <u> </u>	75. <u> </u>	76. <u> </u>	77. <u> </u>	78. <u> </u>	79. <u> </u>	80. <u> </u>	81. <u> </u>
8th	82. <u> </u>	83. <u> </u>	84. <u> </u>	85. <u> </u>	86. <u> </u>	87. <u> </u>	88. <u> </u>	89. <u> </u>	90. <u> </u>	91. <u> </u>	92. <u> </u>
9th	93. <u> </u>	94. <u> </u>	95. <u> </u>	96. <u> </u>	97. <u> </u>	98. <u> </u>	99. <u> </u>	100. <u> </u>	101. <u> </u>	102. <u> </u>	103. <u> </u>
10th	104. <u> </u>	105. <u> </u>	106. <u> </u>	107. <u> </u>	108. <u> </u>	109. <u> </u>	110. <u> </u>	111. <u> </u>	112. <u> </u>	113. <u> </u>	114. <u> </u>

I.S. - 90

	A.I.S. - 90							Injury		Occupant	
	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Source Confidence Level	Direct/ Indirect Injury	Area Intrusion Number
11th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
12th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
13th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
14th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
15th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
16th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
17th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
18th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
19th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
20th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
21st	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
22nd	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
23rd	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
24th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —
25th	—	—	—	— — —	— — —	—	—	— — — —	—	—	— — —

BODY DIAGRAMS AND MEDICAL RECORDS
FROM
INITIAL TREATMENT FACILITY

OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive	(1) Right
(2) Face		two-digit numbers beginning with 02.	(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>		(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(4) Central
(5) Abdomen		To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or	(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified	The exceptions to this rule apply to:		(9) Unknown
			(0) Whole region
Type of Anatomic Structure	Whole Area		
(1) Whole Area	(02) Skin - Abrasion		
(2) Vessels	(04) Skin - Contusion		
(3) Nerves	(06) Skin - Laceration		
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion		
(5) Skeletal (includes joints)	(10) Amputation		
(6) Head - LOC	(20) Burn		
(9) Skin	(30) Crush		
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

Abbreviated Injury Scale

- (1) Minor Injury
 (2) Moderate Injury
 (3) Serious Injury
 (4) Severe Injury
 (5) Critical Injury
 (6) Maximum (untreatable)
 (7) Injured, unknown severity

SOURCE OF INJURY DATA**INJURY SOURCE
CONFIDENCE LEVEL****DIRECT/INDIRECT INJURY****OFFICIAL RECORDS**

- (1) Autopsy records with or without hospital/medical records
 (2) Hospital/medical records other than emergency room (e.g., discharge summary)
 (3) Emergency room records only (including associated X-rays or other lab reports)
 (4) Private physician, walk-in or emergency clinic

UNOFFICIAL RECORDS

- (5) Lay coroner report
 (6) E.M.S. personnel
 (7) Interviewee
 (8) Other source (specify):
 (9) Police

- (1) Certain
 (2) Probable
 (3) Possible
 (9) Unknown

- (1) Direct contact injury
 (2) Indirect contact injury
 (3) Noncontact injury
 (7) Injured, unknown source

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Air bag
deployed
(ED, NN)

Restrained?

☐ No
☒ Yes (NN)
Blood Alcohol Level
(mg/dl)BAL = .02
19 mg/dl (PP)Glasgow Coma
Scale ScoreGCS = 15
(NN, CN2)Units of Blood
GivenUnits = 1
Packed RBC
(ED, NN)
Arterial Blood Gases

pH = —

PO₂ = —PCO₂ = —HCO₃ = —• Restrained driver @ approximately
45 m.p.h. (NN)• Pt was wearing a
passive restraint (NN)

• Seat broken (ED)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Bleeding @ forehead (NN)
Laceration, 2 cm (NN)

Abrasion @ clavicular area (NN)

• No severe chest pain, stable BP (ED, NN, CN2)

• Lungs clear, abdomen soft nontender, pelvis ok, moves all extremities (PP, CN2)

Red area over @ lower rib cage and @ flank areas. ? seat belt marks (NN)

• Small abraded area @ knee (NN)

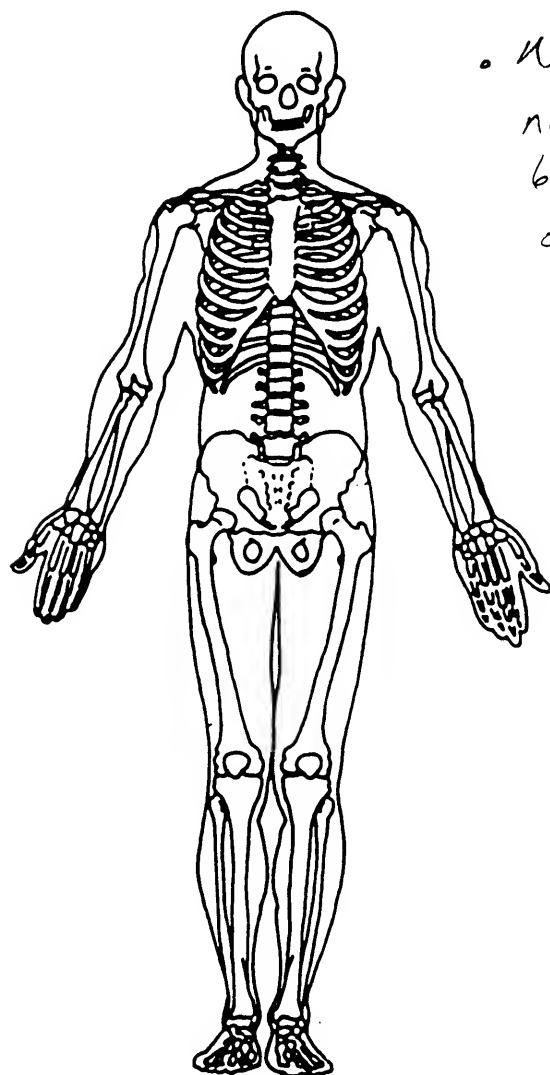
Condition on transfer: stable but critical (CN1, CN2)

ETOH odor (NN)

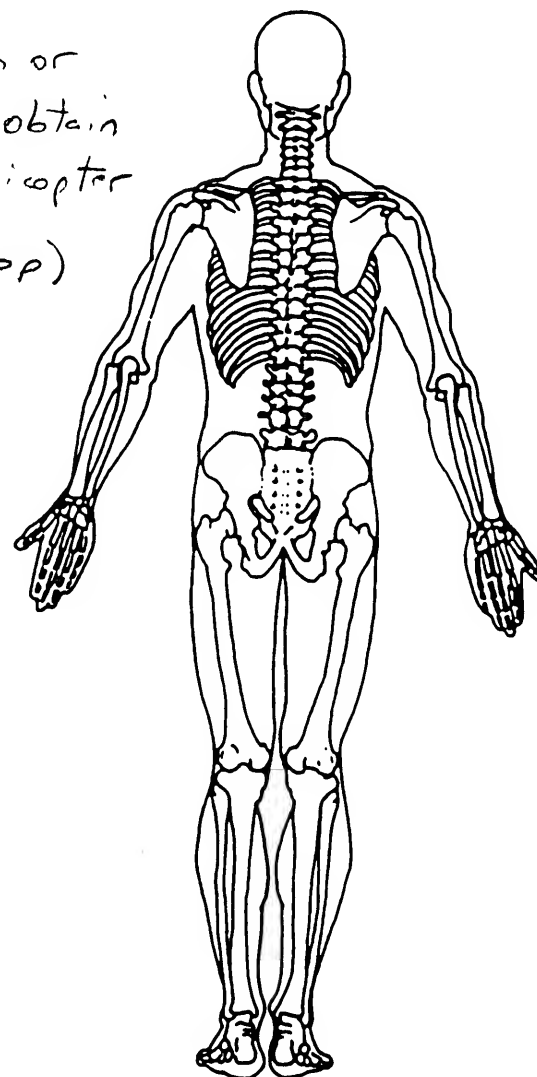
OFFICIAL INJURY DATA — SKELETAL INJURIES

BEST AVAILABLE

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



• No CT scan or
neck films obtain
because helicopter
on way (PP)



INJURY SOURCES

FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): _____

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): _____
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): _____

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): _____
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): _____

INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): _____
- (155) Head restraint system
- (160) Other occupants (specify): _____
- (161) Interior loose objects
- (162) Child safety seat (specify): _____
- (163) Other interior object (specify): _____

AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): _____

ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): _____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts. (specify): _____
- (409) Additional or relocated switches. (specify): _____

- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): _____
- (454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): _____
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): _____
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): _____
- (514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify): _____
- (599) Unknown vehicle or object

NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): _____
- (604) Air bag exhaust gases
- (697) Injured, unknown source

OFFICIAL INJURY DATA — INTERNAL INJURIES

BEST AVAILABLE

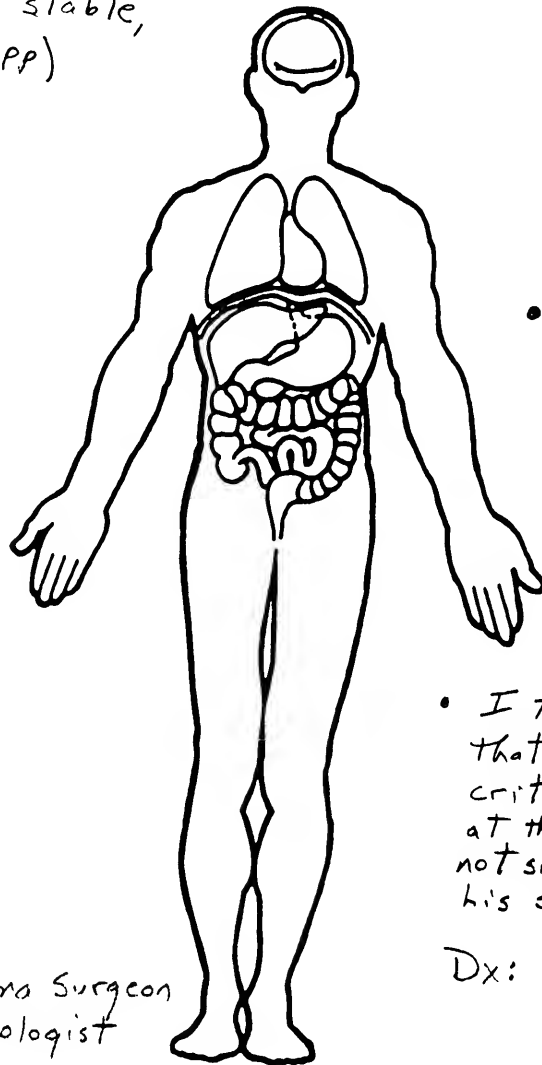
National Accident Sampling System-Crashworthiness Data System: Occupant Injury Form

MEDICAL RECORDS FROM INITIAL TREATMENT FACILITY

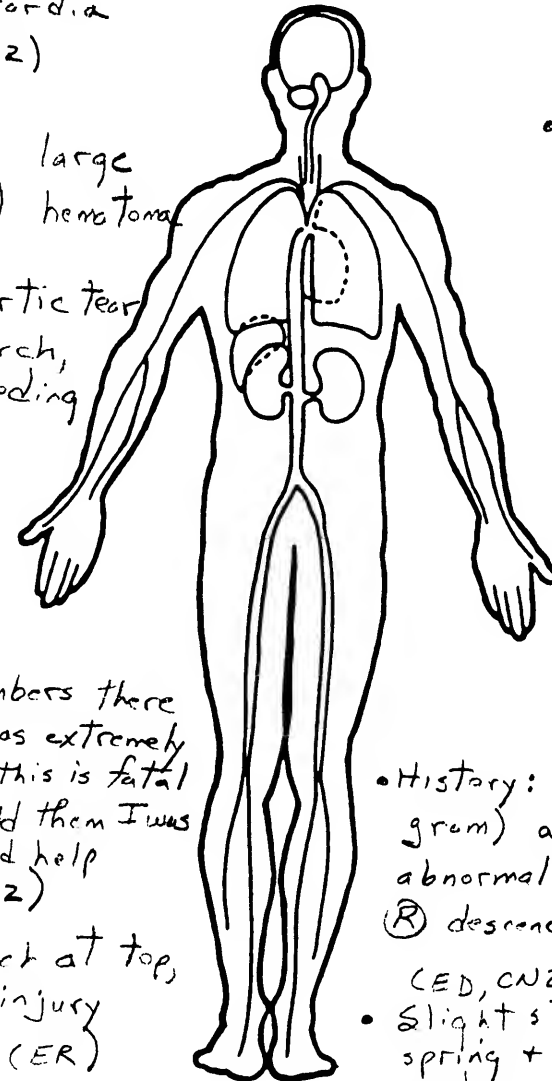
- Aortic arch tear between (L) common carotid and (R) innominate (PP, CN2)
(proximal to) (distal to)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Up walking at site, then fell (CN2)
- Pt alert and answering questions (ED, CN2)
- Bradycardia (ED, CN2)
- Awake on arrival (CN2, CN2)
- Neurologically intact (CN2)
- At original exam heart was stable, no rubs (PP)



- Chest X-ray: large mediastinal hematoma (ED, CN2)
- Angiogram: aortic tear at top of arch, no active bleeding (ED, CN2)



- I told 3 family members there that his condition was extremely critical and usually this is fatal at the scene ... I told them I was not sure if anyone could help his situation (CN2)

Dx: Tear aortic arch at top, Deceleration injury (ER)

- History: (old angiogram) aortic arch abnormality with (R) descending aorta (ED, CN2)
- Slight stroke last spring + right side weakness (PP)

CN1 = Trauma Surgeon
CN2 = Cardiologist

(5 months prior - NN)

CAUSE OF DEATH

ICD-9-CM

OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input type="checkbox"/> Unspecified		

MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
D6	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
PX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)

PP = Physician Progress notes

aptid patient at HVO

MEDICAL CENTER		REGIONAL HOSPITAL	
MEDICAL RECORDS NO.	EMERGENCY / TRAUMA RECORD		ACCOUNT NO.
PATIENT NAME: LAST/FIRST/M.I.	AGE	BDATE	DATE
	71		1611
BROUGHT BY AMBULANCE-			
STREET ADDRESS/CITY/STATE/ZIP			
HOME PHONE	EMPLOYER	OCCUPATION	WORK RELATED
		RETIRED	N
PRIMARY INSURANCE PLAN		FAMILY DOCTOR NAME	EMSTAR DOCTOR
REASON FOR VISIT : MVA			
<i>Notified RFL</i>			
TIME	PHYSICIAN ORDERS	DONE	HISTORY & PHYSICAL
	CHEST <input checked="" type="checkbox"/> PORT		TIME EXAMINED: <input checked="" type="checkbox"/> STAT I ROUTINE <input type="checkbox"/>
	C-SPINE <input type="checkbox"/> PORT		<p><i>Head on Collision on</i> <i>- brought to trauma room</i> <i>severe chest pain & stable B.L.P.</i> <i>around 100-105/60. Sinus</i> <i>bradycardia in 40-50 range</i> <i>which he has had before</i> <i>EKG same as before. Portable</i> <i>chest film showed large mediastinal</i> <i>hematoma - old arteriograms</i> <i>showed aortic arch abnormality &</i> <i>right descending aorta. Arteriogram</i> <i>showed aortic tear at top of arch</i> <i>with no active bleeding at this</i> <i>time. B.L.P. shot up to 150 after</i> <i>1/2 hr injected - nitroglycerine drip started</i> <i>at 30 mls/min - after 1/2 hour B.L.P. dropped</i> <i>to 70 - Nitro stopped & B.L.P. slowly</i> <i>Came up to 78, One unit of packed Rbc</i></p>
	PELVIS <input checked="" type="checkbox"/> PORT		
	ABDOMEN <input checked="" type="checkbox"/>		
	CT		
	U/S		
	CBC		
	CHEM 19		
	CHEM 7		
	AMYLASE		
	BHCG		
	PT/PTT		
	BLOOD CULTURES X		
	ADMISSION		
	CCU		
	TPA		
	TRAUMA I <input checked="" type="checkbox"/>		
	TRAUMA II		
	U/A		
	ABG		
	EKG <input type="checkbox"/> PRIOR		
TIME	MEDS AND TREATMENT	DONE	LAB
	CARDIAC MONITOR		<p><i>Diagnosed - nitroglycerine drip started</i> <i>at 30 mls/min - after 1/2 hour B.L.P. dropped</i> <i>to 70 - Nitro stopped & B.L.P. slowly</i> <i>Came up to 78, One unit of packed Rbc</i></p>
	PULSE OX		
	O2		
	S/A 2 mgm MS		
	HEPLOCK		
	IV 2 mgm Nitro		REFERRED TO: _____ TIME: _____ RESPONSE: _____
			DISCUSSION: <i>Came up to 78, One unit of packed Rbc</i>
	CONDITION ON DISCHARGE	DISPOSITION	DISCHARGE DIAGNOSIS
	<input type="checkbox"/> GOOD	<input type="checkbox"/> HOME	<p><i>Tear - aortic arch at top</i> <i>Deceleration injury</i> <i>MVA</i></p>
	<input type="checkbox"/> SATISFAC	<input type="checkbox"/> ADMIT	
	<input type="checkbox"/> FAIR	<input type="checkbox"/> CORONER	
	<input type="checkbox"/> POOR	<input checked="" type="checkbox"/> TRANSFER	
	<input checked="" type="checkbox"/> CRITICAL	<input type="checkbox"/> OBSERVA	
	<input type="checkbox"/> EXPIRED	<input type="checkbox"/> ELOPE	
		<input type="checkbox"/> AMA	
	ADMIT	MED. REC. NO.	ACCOUNT NO.
	DISCHARGE	PHYSICIAN'S SIGNATURE	

Continued trauma note

VALLEY MEDICAL CENTER

PROGRESS NOTES

DATE	TIME	PROGRESS NOTES
		<p>packed Rbc hanging at slow drip (non X matched O neg) To keep B.L.P. down. Lactated Ringer used sparingly.</p> <p>Continued to note</p> <p>150 mics fentanyl given by anesthesia. Also had 150 mgs fentanyl.</p> <p>converted arteriogram catheter to femoral art line - had 14 angio cath in Rt antecubital + a 16 in lower Rt forearm + #18 in left arm.</p> <p>was here, evaluated the patient and the arteriogram & felt patient should be at medical center with heart-lung bypass capability & also ability to give deep hypothermia.</p> <p>made arrangements for transfer to. & cleared it w/ the Health Plan to by Stat - Medivac helicopter.</p> <p>At original exam heart was stable - no rubs. Lungs - clear Abdomen soft & non tender Pelvis OK - moved all extremities.</p> <p>Patient went straight to X-ray for arteriogram on advice of radiologists. ETT tube placed by anesthesia & aid of morcuron IV. N/G tube drained beer from his stomach - BAL only 19.</p> <p>History of slight stroke last spring & right sided weakness - takes Norvasc 10 mgs daily at 7⁰⁰ AM.</p> <p>No allergies according to patient.</p> <p>C collar still in place at transfer - no time for C T since helicopter on the way.</p> <p>No neck films obtained.</p>

Distal tear between common carotid & RT carotid

FORM #OV-189 (7/96)

MEDICAL CENTER
Trauma Patient Care Plan

Date 7/6 Arrival Time 46:10

Name _____ ER # _____

TRAUMA TEAM RESPONSE ☒ I ☐ II ☐ MOTT

ED Doctor _____

Trauma RN _____

ED Other _____

LEVEL I ACTIVATION

Arrival Time

Trauma Surgeon 16:13

Anesthesia 16:16

CRNA _____

Other _____

LEVEL II ACTIVATION

Responded Arrival Time

Trauma Surgeon 16:20

Other _____

CONSULT/ SERVICE/ NAME Responded Arrival Time

Neuro _____

Ortho _____

Plastics _____

Other _____

PRE HOSPITAL INFORMATION

☒ Ambulance ☐ Helicopter

☐ Auto ☐ Transfer

☐ Ambulatory ☐ Other

MECHANISM OF INJURY

☒ MVA vs Another car

☐ Motorcycle vs _____

☐ Fall _____

☐ GSW _____

☐ Stab _____

☐ Assault _____

☐ Other _____

☐ Unknown _____

☐ LOC min _____ ☐ Unsure ☐ Unknown

Describe details of the injury:

MVA Restrainted Driver

App' 45 mph

Hit by Another car

up walking at night then

fell

It was wearing a passive

restraint & air bag

in p.p. car did deploy

Primary Assessment

Time 11:15

AIRWAY

☒ Patent ☐ Obstructed

☐ Natural ☐ Artificial

☒ O₂ 15 ☐ NC

☐ NRB ☐ BVM

☐ ET/NT ☐ ET # 8.5 @ 18:45

☐ Trachea midline ☐ Trachea deviated ☐ R ☐ L

BREATHING

☒ Spontaneous ☐ Breath Sounds R L

☐ Regular ☐ Present ☐ Clear ☐ Decreased

☐ Unlabored ☐ Absent

☒ Symmetrical ☐ Crackles ☐ Rhonchi

☐ Absent ☐ Wheezes

☐ Shallow ☐ Asymmetrical

☐ Labored

CIRCULATION

External Bleeding ☐ No ☒ Yes (L) face neck

Color ☒ Normal ☐ Ashen

☐ Flushed ☐ Mottled

☐ Pale ☐ Cyanotic

Temp ☐ Warm ☐ Hot

☒ Cool ☐ Cold

Moisture ☐ Normal ☐ Refill ☐ < 2 seconds

☐ Dry ☐ > 2 seconds

☐ Diaphoretic ☐ None

Heart Sounds ☐ Present ☐ Absent ☐ Distant

☐ Regular ☐ Irregular ☐ Muffled

Rhythm ☐ Best Pulse ☒ Strong ☐ Bounding ☐ Weak ☐ Absent

Pulse Present ☐ Carotid ☐ Radial ☐ Pedal

GCS

Eye Opening ☐ Spontaneous ☐ To Voice ☐ To Pain ☐ None

Verbal ☐ Oriented ☐ Confused ☐ Inappropriate words ☐ Incomprehensible ☐ None

Motor ☐ Obeys command ☐ Purposeful move ☐ Withdrawn ☐ Flexion ☐ Extension ☐ None

Score ☐ 4 ☐ 3 ☐ 2 ☐ 1

RTS

Respiratory Rate ☐ 10 - 24 ☐ 25 - 35 ☐ ≥ 36 ☐ 1 - 9 ☐ 0

Systolic BP ☐ > 89 mm Hg ☐ 70 - 89 ☐ 50 - 69 ☐ 1 - 49 ☐ 0

DEFICIT: NEURO

Motor ☐ Obeys command ☐ Purposeful move ☐ Withdrawn ☐ Flexion ☐ Extension ☐ None

Total GCS ☐ 6 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ 0

PUPIL REACTION ☐ OS (L) ☐ Size ☐ mm

☐ Brisk ☐ Constricted ☐ Sluggish ☐ Dilated ☐ Nonreactive

GCS Score ☐ 13 - 15 ☐ 9 - 12 ☐ 6 - 8 ☐ 4 - 5 ☐ 3 ☐ 0

Total RTS ☐ 16 ☐ 15 ☐ 14 ☐ 13 ☐ 12 ☐ 11 ☐ 10 ☐ 9 ☐ 8 ☐ 7 ☐ 6 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ 0

EXTREMITIES

Movement ☐ R Arm ☐ L Arm ☐ R Leg ☐ L Leg

Sensation ☐ Y ☐ N ☐ Y ☐ N

NN

Past History ☐ None Medications ☐ None Allergies ☒ NKA

HYN Morvan NKA

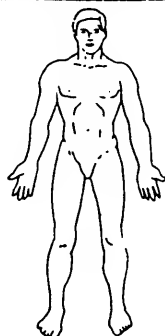
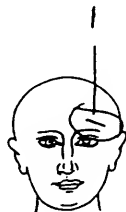
CVA (R) Side weakness

Last Tetanus ☒ Unknown ☐ < 5 yrs ☐ > 5 yrs Last meal ETOT 10:00 LMP N/A

SECONDARY ASSESSMENT

IDENTIFY INJURY SITE BY NUMBER

1. Abrasion
2. Amputation
3. Avulsion
4. Burn
5. Contusion
6. Deformity
7. Ecchymosis
8. Fracture, Closed
9. Fracture, Open
10. GSW
11. Hematoma
12. Laceration
13. Stab
14. Other



Patient Complaints of Pain / Discomfort 0 1 2 3 4 5 / ☐ Unable to respond

Mid chest discomfort
no chest pain

Head / Face ☐ No Visible Injury

(L) forehead laceration approx

C-spine / Neck ☐ No Visible Injury

neck level intact

Chest ☐ No Visible Injury

Abrasion (L) Clavicular area

Abdomen ☐ No Visible Injury

Sft, non-distended
non tender

Perineum / Rectal ☐ No Visible Injury

Extremities ☐ No Visible Injury

Radial pulses are palpable + (-)
bilaterally

PATIENT INFORMATION

TIME DONE RESUSCITATION ORDERS

X-RAYS

C-Spine

16:15 Chest

Pelvis

Abdomen

Thoracic Spine

Lumbar Spine

Extremity

Extremity

CT Head

CT Spine

CT Chest

CT Abdomen

16:45 To CT 16:47 From CT 16:47

16:55 To X-ray 16:58 From X-ray 17:00

LAB

16:45 Level I Profile

Level II Profile

ABGs on ☐ Rm Air ☐ O₂ L

DPL Fluid

BHCG

16:45 Type & Cross / Hold # units

16:45 PT/PTT

16:45 CK-MB

PROCEDURES

PTA O₂ 15 L/min via NRB / NC / BVM

ET # By

NT # By

Chest Tube R# L#

R returns

L returns

RIV Site Size

PTA RIV Site #14 Size

PTA LIV Site #16 Size

LIV Site Size

Central Site

Cutdown Site

16:17 EKG

18:50 NG # R (L) Nare #13 Returns yellow ETOT 10:00

Foley #

Urine: Yellow Amber Bloody

DPL: Clear Pink Bloody

Rectal + / - OB

CPR

PASG Inflated Legs / Abd

Splint

Sutures

Restraints UE LE Type

C-Spine Cleared By

TIME

17:50 NTG ↑ 30/20 mmHg 30¹³²/70

18:00 Moved back to ER department.

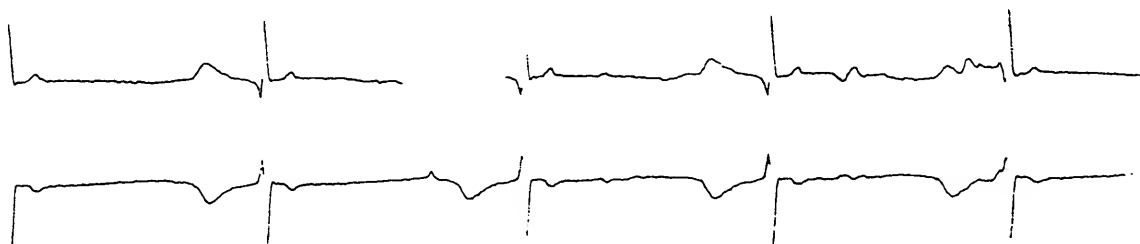
18:10 NTG ↑ 33.3 mmHg

18:45 d/w NTG - ↓ 70 30/20

Placed fluids back.

18:55 Taped to 8.5 OET. Taped at 21. CO₂ detector (Pip R) placed. Bilateral BS present. YG ↓ IP mucus. Placement Verified.

CRYSTALLOID		INTAKE		COLLOID		OUTPUT	
Lactated Ringers		Packed Cells					
1 <u>#1</u>	2 _____	3 _____	4 _____	5 _____	6 _____	R Chest Tube	_____
1 <u>ABSORBED</u>	2 <u>ABSORBED</u>	3 <u>ABSORBED</u>	4 <u>ABSORBED</u>	5 <u>ABSORBED</u>	6 <u>ABSORBED</u>	L Chest Tube	_____
7 _____	8 _____	9 _____	10 _____	11 _____	12 _____	NG	18:35 <u>Ø</u>
7 <u>ABSORBED</u>	8 <u>ABSORBED</u>	9 <u>ABSORBED</u>	10 <u>ABSORBED</u>	11 <u>ABSORBED</u>	12 <u>ABSORBED</u>	Urine	250
TOTAL 1900		FFP		TOTAL _____		Other	_____
Normal Saline		Platelets					
1 _____	2 _____	3 _____	4 _____	5 _____	6 _____		
1 <u>ABSORBED</u>	2 <u>ABSORBED</u>	3 <u>ABSORBED</u>	4 <u>ABSORBED</u>	5 <u>ABSORBED</u>	6 <u>ABSORBED</u>		
7 _____	8 _____	9 _____	10 _____	11 _____	12 _____		
7 <u>ABSORBED</u>	8 <u>ABSORBED</u>	9 <u>ABSORBED</u>	10 <u>ABSORBED</u>	11 <u>ABSORBED</u>	12 <u>ABSORBED</u>		
TOTAL _____		TOTAL _____		TOTAL _____			
ED TOTAL 1900		ED TOTAL 50		ED TOTAL 250			



Disposition:

☐ Admit / Discharge / Transfer To _____ Date _____ Time 18:45 Report Called _____

☐ Expired Date _____ Time _____ Coroner Notified ☐ Yes ☐ No Time _____ Autopsy ☐ Yes ☐ No

☐ C.O.R.E. Notified Date _____ Time _____

☐ Attending Notified Dr. _____ Date _____ Time _____

☐ Family Notified Date _____ Time _____ ☒ Here Time _____ ☐ Unable to Reach Time _____

☐ Pastoral Care Notified Date _____ Time _____

☐ Other Notified _____ Date _____ Time _____

☒ Valuables ☐ With Patient ☒ With Family ☐ To Cashiers

PATIENT INFORMATION

PATIENT NAME: _____

BEST AVAILABLE

PATIENT ACCT: 1 _____

ES

TIME	P	R	BP	NURSING NOTES
18:45				Verbalizing IV by amputation.
				Start Medival (arrived)
				App 18:25.
				Influent + PC's changed to
				Start Medival tubing.
				Case documented by Start
				Medival.
				Pre-intubation drugs given
				by Start Medival.
				Transported to (ulipad)
				Family escorted to bed side bedside
				by RN @ 18:35.
				PTOP Nurse & Watch given to
				(PT relative working)
				C PERT + comm
18:50				Attempt to call report to WVC/ER
				line busy
18:51				Attempt to call WVC
				still unsuccessful
18:55				2-3 more calls to WVC
19:				Busy.

MEDICAL CENTER

CONSULTATION

PATIENT: ACCT#/MR #: LOCATION: VER
 ADM/DIS DATES: AGE: 71
 PHYSICIAN: M.D. and
 COPIES TO: M.D.,
 DATE OF CONSULTATION: 96

This is a 71 year old male who was involved in an auto accident on 96. He was brought to as a Level I Trauma and seen by Dr. I was asked to see him because of aortic injury.

On examination in the trauma room his blood pressure and pulse were acceptable with a blood pressure systolic ranging from 90 to 120 and his pulse was bradycardic at about 45 to 60 but regular sinus rhythm. He was awake and alert. He complained of substernal chest discomfort; however, he was breathing easy and his lungs were clear. His abdomen was soft. Extremities and skeleton revealed no major deformities. Neurologically he was intact.

Initial chest x-ray revealed a wide mediastinum. Arteriogram was done and confirmed an aortic arch injury. There was a tear of the aorta at the arch just distal to the innominate artery but proximal to the left carotid artery. The aorta was also an anomaly in that it was a right descending aorta. During the aortogram the patient became somewhat hypertensive with systolic blood pressures in the 150s. He was started on Nitroglycerin and his blood pressure came down to a systolic of 100 to 120. He remained stable with no new problems with regards to chest pain, shortness of breath or anything else of major concern.

It was decided in order to repair the injury he would need profound hypothermia and complete circulatory arrest with cardiopulmonary bypass. I decided that he was not an appropriate case to do at and that he needed to go to a tertiary center with more help. I talked to the University of but the patient was a Health Plan patient. For that reason I talked with who gave the okay to send him to University. I talked to at University who accepted him in transfer. The weather was a problem in that several of the helicopter services would not fly but finally Helicopter Service from said they would take him to He was transported by helicopter to When he left he was in stable but critical condition. I talked to his sister as his son was not yet available. I told the three family members there that his condition was extremely critical and usually this is fatal at the scene of the accident. I told them I was not too sure if anyone could help his situation. He would have an extremely dangerous operation to try to control this and repair his problem. I explained the situation also to the patient as best I could. I told him he was critically injured and he would be best cared for at a tertiary care center such as

D: ---
 T: --- RT

M.D.

ACCT/MR #:

*LIVE**

Database

DRAFT COPY

Run: 96-12:24 by

Page 1 of 1

CN2

MEDICAL CENTER

BEST AVAILABLE

EMERGENCY TRAUMA RECORD

MEDICAL RECORD #:

ACCOUNT #:

PATIENT NAME:

ADM DATE/TIME:

DISPOSITION:

DIS DATE/TIME:

FAMILY PHYSICIAN:

M.D.

COPIES TO:

SERVICE DATE:

CC: Trauma.

Pt. was seen by the trauma service, Dr. who was present when the pt. arrived.
Care of the trauma pt. was by the trauma service without involvement by myself.

Condition at discharge: CRITICAL

Diagnosis at discharge: TRAUMA, MVA, LEVEL ONE

D:

<<Signature on File>>

T:

ACCT#/UNIT#:

LIVE

Database

Run: 96-12:24 by

Page 1 of 1

CN1

Pg 2 of 2

HOSPITALS

PERFUSION RECORD

BEST AVAILABLE

Date

Patient Name

Age

Procedure

Oxygenator

Surgeon

Perfusionist

Art. Cannula

Weight

kg

Height

cm

m²

All: MCLA

Ven Cannula

Flow

PRESSURES					FLOW			TEMP			BLOOD GAS ANALYSIS						°HCT	HMS ACT	N F L	EVENT
TIME	AMP	CVP	PAD	ART RES	Blood	% O ₂	Air	Rectal	Esoph	Ear Heart	PH	PCO ₂	PO ₂	BASE	HCO ₃					
2559	66	—	—	200	4.7	50	S.D	33.4	—	—	A						20.5		F 100mg Bicarb ACT HCT	
2609	50	—	—	200	4.7	50	S.D	33.4	—	—	V								F 100mg Bicarb	
2615	26	—	—	—	—	—	—	33.4	—	—	V								FFCPB	
1216											V									Pt Expired.
											V									
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XC ON

XC OFF

CARDIOPLEGIA

AMT (cc)	M	TEMP	C	SPE	TIME

BLOOD RECORD

TYPE

WB

PRC

UNITS

PRE PUMP DRUGS

HEPARIN

BICARB

MANNITOL

ALBUMIN

PUMP VOLUME GAIN

PLASMA-LYTE-A

BLOOD

BICARB

HEPARIN

ALBUMIN

CARDIOPLEGIA

MANNITOL

TOTAL IN

XC TIME

MIN

PUMP TIME

MIN

CIRC ARREST TIME

MIN

PUMP VOLUME LOSS

REMAINING IN PUMP

SAMPLES

BLOOD LOSS

URINE OUTPUT

ULTRAFILTRATE

TOTAL OUT

GAIN

TOTAL

LOSS

COMMENTS:

M = Neo, F = Forane, L = Levo

Anesthesia

PA

PERFUSIONIST
SIGNATURE

DRUGS

Pg 1 of 2

HOSPITALS

BEST AVAILABLE

PERFUSION RECORD

Date _____

Patient Name _____ Age _____

Procedure Repair Thoracic Transection Oxygenator MaxSurgeon _____ Perfusionist _____ Art Cannula 20F HardWeight 80 kg Height 183 cm BSA 2.02 m² All: NRDA Ven Cannula 36-4L 72gPer Anesthesia Flow 3.2 (1.6) - 5.2 (2.6)

TIME	PRESSURES				FLOW			TEMP			BLOOD GAS ANALYSIS					% HCT	HMS ACT	N F L	EVENT
	AMP	CVP	PAD	ART RES	Blood	O ₂	Air	Rectal	Esoph	Ear	PH	PCO ₂	PO ₂	BASE	HCO ₃				
2031	63																		24 O ₂ in Hep
2045	67			70	2.0	6.0	4.0	34									99		ON CPB Act HCT
2048																			OFF CPB x 2
2100	57				2.6	4.0	4.0												On CPB
2115	56				3.0	3.0	3.0	35			7.4	55	70	-12	16	25	99	L	Act HCT, HCT
2119					3.0					27									OFF CPB, R. Card
2134					3.0	1.21	1.0	35		16									R. Card
2149					3.0	1.21	1.0	35		12									R. Card
2155	58			80	2.5	3.0	2.0	37		11									ON CPB, Reperfusion
2202	41			130	3.8	3.0	3.0	35		11									ACT HCT, HCT 100%
2215	35			130	4.0	4.0	4.0	35		10	7.5	14	20	-7	15	25	99	L	Gas
2219	59			200	3.8	4.0	4.0	35		19									Cool, HCT, Act
2225	58			210	4.0	4.0	4.0	35		20									100% Bicarb
2233					2.0	2.1	1.0	35		20									OFF CPB, R. Card
2252					2.0	2.1	1.0	35		21									Blood Temp - 13°
2257	53			100	2.6	3.0	2.0	35		21									ON CPB Act HCT, HCT
2306	65			200	5.7	3.0	4.0	35			7.4	46	27	-5	18				Gas
2316	66			200	3.8	4.0	4.0	35											50% Bicarb
2331	47			170	4.5	4.0	4.0	35											ACT HCT, HCT
2345	73			150	4.8	5.0	4.0	35											50% Bicarb

XC ON _____

XC OFF _____

CARDIOPLEGIA (200)

AMT (cc)	M	TEMP	C	SITE	TIME

BLOOD RECORD

TYPE O pos WB ☒ PRC ☒

PRE PUMP DRUGS

HEPARIN 10.000u
 BICARB 5mEq
 MANNITOL 5g
 ALBUMIN 25g

PUMP VOLUME GAIN

PLASMA LYTE-A 16000
 BLOOD 2750
 BICARB 550
 HEPARIN 5
 ALBUMIN 1250
 CARDIOPLEGIA 0
 MANNITOL 0

TOTAL IN

20,700

Ischemic

PUMP TIME 139 MINCIRC ARREST TIME 60 (36+24) MIN

PUMP VOLUME LOSS

REMAINING IN PUMP 4800
 SAMPLES 80
 BLOOD LOSS 8000
 URINE OUTPUT 51
 ULTRAFILTRATE 10,931
 TOTAL OUT 17,69
 TOTAL GAIN 1769
 LOSS

Lites

K⁺ 3.6 Ca⁺⁺ 0.59
 3.8 0.54

COMMENTS: N = Neo F = Forane L = Levo

MVA, A₂ Transection

Anesthesia _____

PA _____

PERFUSIONIST
SIGNATURE _____

OR-007-RS-02

UNITS 27GC 27842
 27GC 27466 27GC 27906
 27GC 27475 27GC 27885
 27GC 27463 27GC 27917 @ 2102

27GC 28218
 27V51025 2745

BODY DIAGRAMS AND MEDICAL RECORDS
FROM
FACILITY TO WHICH
OCCUPANT WAS TRANSFERRED AND HOSPITALIZED

OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive	(1) Right
(2) Face		two-digit numbers	(2) Left
(3) Neck	<u>Vessels, Nerves, Organs,</u>	beginning with 02.	(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned		(4) Central
(5) Abdomen	consecutive two digit		(5) Anterior
(6) Spine	numbers beginning with	To the extent possible,	(6) Posterior
(7) Upper Extremity	02.	within the organizational	(7) Superior
(8) Lower Extremity		framework of the AIS, 00	(8) Inferior
(9) Unspecified	The exceptions to this rule	is assigned to an injury	(9) Unknown
	apply to:	NFS as to severity or	(0) Whole region
		where only one injury is	
		given in the dictionary for	
		that anatomic structure.	
		99 is assigned to any	
		injury NFS as to lesion or	
		severity.	
Type of Anatomic Structure	<u>Whole Area</u>	Abbreviated Injury Scale	
(1) Whole Area	(02) Skin - Abrasion	(1) Minor Injury	
(2) Vessels	(04) Skin - Contusion	(2) Moderate Injury	
(3) Nerves	(06) Skin - Laceration	(3) Serious Injury	
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion	(4) Severe Injury	
(5) Skeletal (includes joints)	(10) Amputation	(5) Critical Injury	
(6) Head - LOC	(20) Burn	(6) Maximum (untreatable)	
(9) Skin	(30) Crush	(7) Injured, unknown severity	
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

SOURCE OF INJURY DATA**INJURY SOURCE****DIRECT/INDIRECT INJURY****CONFIDENCE LEVEL****OFFICIAL RECORDS**

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL RECORDS

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____
- (9) Police

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Air bag
deployed
(NN)

Restrained?

— No ? (PP1)
— YesBlood Alcohol Level
(mg/dl)BAL = 0
(LR1, PP1)Glasgow Coma
Scale Score

GCSS =

Units of Blood
Given6 PRC (NN)
Units = 26
(LR1)

Arterial Blood Gases

pH = 7.44 7.10 7.57 7.09

PO₂ = 173 96 202 301PCO₂ 26.2 46.7 13.8 53.1HCO₃ 17.8 14.7 12.8 16.2

Base Excess -4.1 -13.2 -7.3 -12.2

1934 2047 2216 2110

(LR1) (LR2) (LR3) (LR4)
PP1

Arterial Values

Air bag deployed and knocked seat back (NN)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interview data are unavailable.)

• Head-on MVA
(NN HP, PP1 PP2 PP3)Ø depression or lesion
over head (PP1)Laceration, 2 cm, (L)
forehead (ER, HP)
over eyebrow (PP1)Contusion/hematoma
upper (L) chest
(NN, HP, PP1)Extremities:
atraumatic (HP)Dx: Hypotension,
bradycardia
(ER, HP)hemepositive
rectal exam poor
tone (NN, HP, PP1)? ETOH
(PP1)

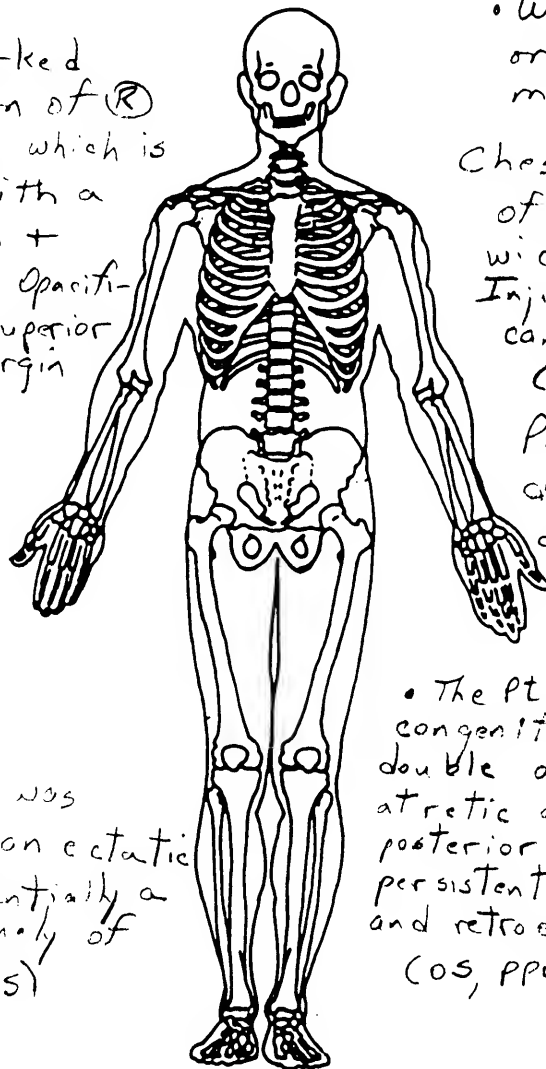
OFFICIAL INJURY DATA — SKELETAL INJURIES

• pt suffered a high velocity deceleration injury due to a head-on MVC crash (OS)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Chest, C-Spine, Pelvis
X-rays ordered (WV)

Chest: marked opacification of @ hemi thorax which is consistent with a large effusion + atelectasis. Opacification at @ superior lung field margin (PX1)



• Widened mediastinum on X-ray @ initial medical facility (OS)

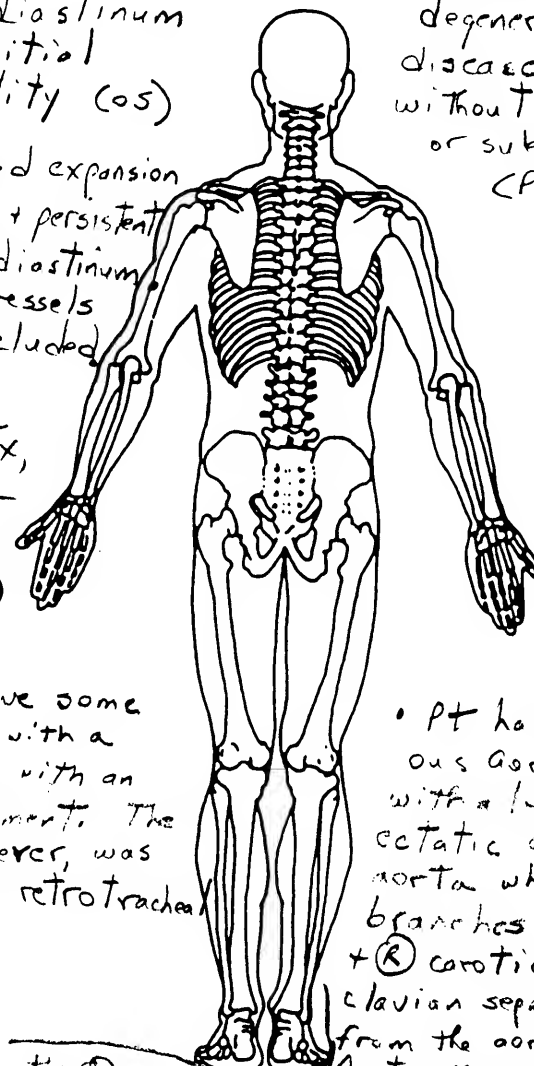
Chest: Increased expansion of @ lung field + persistent widening of mediastinum. Injury to great vessels cannot be excluded (PX2)

Pelvis: No Fx, dislocation, or diastasis is noted (PX1)

• The Pt seems to have some congenital anomaly with a double aortic arch with an atretic anterior segment. The posterior segment, however, was persistent and passed retrotracheal and retroesophageally (OS, PP4)

Pt by history was known to have an ectatic aorta and potentially a congenital anomaly of the aorta (OS)

C-Spine: advanced degenerative disk disease from C₂-C₇ without acute Fx or subluxation (PX1)



• Pt had on anomalous aortic arch with a long uncuppled ectatic ascending aorta which gave branches of the @ + @ carotid + @ subclavian separately from the aortic arch.

Aorta moved towards @ carotid + @ subclavian. The aorta then descended and took a tortuous course throughout the chest (OS)

INJURY SOURCES

FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): _____

(019) Other front object (specify): _____

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): _____
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): _____

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): _____

- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): _____

INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): _____
- (155) Head restraint system
- (160) Other occupants (specify): _____
- (161) Interior loose objects
- (162) Child safety seat (specify): _____

- (163) Other interior object (specify): _____

AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth

- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify) _____

ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): _____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts. (specify): _____
- (409) Additional or relocated switches. (specify): _____

- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): _____
- (454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): _____
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): _____
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): _____
- (514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify): _____
- (599) Unknown vehicle or object

NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): _____
- (604) Air bag exhaust gases
- (697) Injured, unknown source

OFFICIAL INJURY DATA — INTERNAL INJURIES

- Pt reportedly alert @ scene; extricated self from vehicle, then collapsed (NN, HP, OS, PP2)
- Walking on scene & collapsed (PP1)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

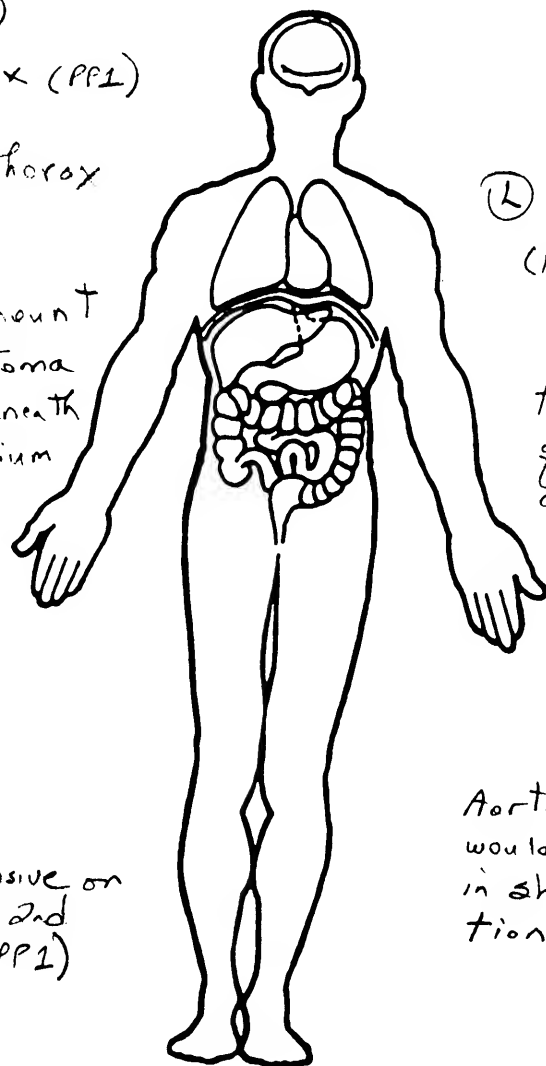
Eyes: 2mm + poorly reactive (HP)

• hemothorax (PP1)

Ⓡ Hemothorax (ER, HP)

• Large amount of hematoma present beneath the manubrium (OS)

• Pt unresponsive on arrival @ 2nd facility (PP1)



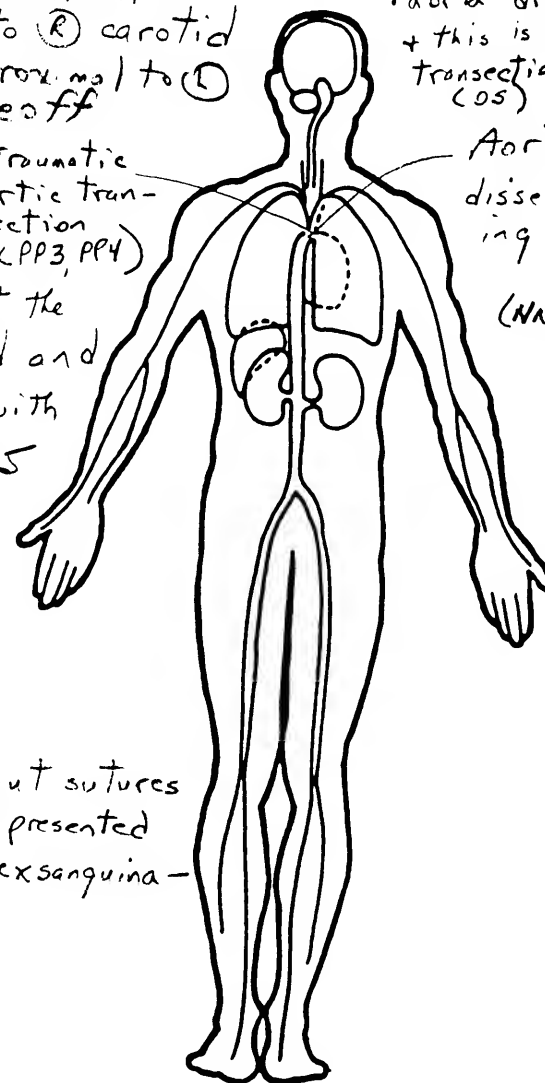
• Aortogram @ initial facility showed a transection of aorta distal to Ⓡ carotid takeoff and proximal to Ⓛ carotid takeoff (OS)

Ⓛ hemothorax (HP)

• Traumatic aortic transection (PP3, PP4)

• The aorta, at the tear was enlarged and quite friable with a diameter of 4-5 cm (OS)

Aorta repaired x 2, but sutures would not hold. Pt presented in shock in OR with exsanguination (PP4)



• aortic transection was midline (OS, PP3)
• aorta divided posteriorly + this is where the transection occurred (OS)

Aortic Tear, dissection, ascending aorta

(NN, ER, HP, PP1)

CAUSE OF DEATH

Deceleration injury caused aorta to tear (PP4)

Time of Death 7:56 post-crash (os)

ICD-9-CM

OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests	Amphetamine	Negative
<input type="checkbox"/> Blood test only	Barbiturate	Negative
<input checked="" type="checkbox"/> Urine test only	Benzodiazepine	Negative
<input type="checkbox"/> Other test	Cannabinoid	Negative
<input type="checkbox"/> Unspecified	Cocaine metabolite	Negative
(LR1)	Opiate	Positive Depressant
	Propoxyphene	Negative

MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)

PP = Physician Progress (Staff) Notes
LR = Laboratory Record

INC.

EMERGENCY DEPARTMENT RECORD

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF VISIT:

AGE/DATE OF BIRTH: /25

CHIEF COMPLAINT
Status post trauma.

ALLERGIES
Unknown.

MEDICATIONS
Unknown.

VITAL SIGNS
Blood pressure 62/, temperature 36.3°C, pulse 87, and patient was mechanically ventilated.

HISTORY OF PRESENT ILLNESS

This is a 71-year-old gentleman who was transferred from Medical Center via helicopter after being involved in a motor vehicular crash. The patient was in a head-on collision who reportedly self-extricated and was ambulatory at the scene until he collapsed. The patient was taken to Center where he was intubated via rapid sequence intubation. The patient then had an aortic arch score which showed an ascending aortic dissection. The patient was then flown from Medical Center to Memorial Hospital. The patient was accepted by the Trauma Surgery Service.

PAST MEDICAL HISTORY
Unable to be obtained.

FAMILY HISTORY
Unable to be obtained.

SOCIAL HISTORY
Unable to be obtained.

HP

BEST AVAILABLE

AGE

☐ M
☐ F

DATE _____

TIME

LMP_

INJURY ☐

ALLERGIES

MEDICATIONS

Pm Hx:

IMM: UTD: Y/N

F/U GIVEN ☐

TETANUS

VISUAL ACUITY OS ____ / ____ OD ____ / ____

MEANS OF ARRIVAL:	
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☐ AUTO☐ AMBULANCE☐ FLIGHT

INJ. CODE

☐ EMERGENT

☐ URGENT

☐ NON-URGENT

TRIAGE SIG.

PHYSICIAN ASSESSMENT

TIME

ORDERS

Y	TIME
---	------

RESIDENT OR PA ☒ DATE

ATTENDING ☐ DATE / /
CHART DICTATED

DIAGNOSTIC IMPRESSION

SIGNATURE

~~CONSULTANTS~~

TIME CALLED

TIME IN

CONDITION: ☐ IMPROVED ☐ STABLE ☐ CRITICAL ☐ OTHER

DISPOSITION: ☐ HOME ☒ ADMIT TO: OR

ACC. BY

77 02 MR FORM • ER-003 MR (R 2/96)

RESIDENT / PA / MS. (c STAFF)

I HAVE SUPERVISED THIS PATIENT'S CARE AND WAS PHYSICALLY PRESENT IN THE EMERGENCY DEPARTMENT.

FACULTY /
STAFF
(Signature)

CHART TO FP

CHART COMPLETE

DATE _____

MEDICAL RECORD

EK

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF VISIT:

PHYSICAL EXAMINATION

HEENT: Pupils approximately 2 mm and poorly reactive. Tympanic membranes were clear bilaterally. Nares were patent. One naris had an NG tube in place. The patient was orotracheally intubated with no evidence of lesions in the mouth. The trachea was midline. The endotracheal tube was at 21 cm at the lip. There was a 2-cm laceration to the left forehead. Chest: The patient had breath sounds clear bilaterally. There was a contusion to the left upper chest. Heart: Regular rate and rhythm with no murmurs, rubs, or gallops. Abdomen: Soft, nontender, nondistended, with absent bowel sounds. Rectal: Heme positive, no tone, normal prostate. Extremities: Atraumatic. The patient was paralyzed and sedated and had no movement or responses.

COURSE IN THE EMERGENCY DEPARTMENT

After initial evaluation, a chest, lateral C-spine, and pelvis films were obtained. The patient's pressure, which was low, had fluids run wide open. A right subclavian and left femoral line were both placed. Fluids were continuously run open. Pressures came up to 92/palpable. 0 Negative blood was sent from the blood bank, and the patient was started on packed red blood cells. The patient had a total of 5 units of packed red blood cells hung in the Emergency Department. The patient had bilateral chest tubes placed by _____ after chest x-rays showed bilateral hemothoraces. _____ got blood return from bilateral chest tubes. A Foley was placed. The NG which was placed at OVMC was placed to suction. Following bilateral chest tube placement, a repeat chest x-ray was performed which showed continued blood in the right hemothorax. The patient was taken directly to the OR. The patient was thought to be too unstable at this time to get a head CT.

ASSESSMENT

1. Ascending aortic dissection/tear
2. Bilateral hemothoraces.
3. A 2-cm laceration to the scalp, left forehead.
4. Hypotension.
5. Bradycardia.

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF VISIT:

DISPOSITION

The patient was taken to the OR by CT Surgery and Trauma Surgery.

M.D.

Resident in Emergency Medicine
for

DATE

I have supervised this patient's care and was physically present in the
Emergency Department.

Assistant Professor
Department of Emergency Medicine

DATE

D:
T:

HOSPITALS, INC.
DEPARTMENT OF SURGERY
OPERATION SUMMARY

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:

AGE/DATE OF BIRTH:

PREOPERATIVE STATUS AND DIAGNOSIS

This is a 71-year-old white male who was reportedly in a motor vehicle accident in the area on 1996, at approximately 3:00 p.m. The patient suffered a high-velocity deceleration injury due to a head-on motor vehicle crash. The patient was taken to the Medical Center initially where he was intubated and initial trauma evaluation begun. The patient developed unstable hemodynamics and by history collapsed at the scene after initially being awake. The workup at Medical Center during their trauma evaluation and resuscitation revealed a widened mediastinum on chest x-ray and the patient underwent aortography. The patient by history was known to have an ectatic aorta and potentially a congenital anomaly of the aorta. This was documented by aortography in the films of which were available in comparison. The aortogram in showed that the patient had a transection of the aorta distal to the right carotid takeoff and proximal to the left carotid takeoff. The patient had an anomalous aortic arch with a long uncoiled ectatic ascending aorta which gave branches of the right and right carotid and right subclavian separately from the aortic arch. The aorta then appeared to move towards the left and give separate origins of the left carotid and left subclavian vessels. It then descended and took a tortuous course throughout the chest. The patient had unstable hemodynamics and the thoracic surgeon in was not comfortable with approaching Mr. case and a decision was made in to transfer him to Memorial Hospital for further evaluation and treatment and consultation with cardiothoracic surgery here. These arrangements were made by Dr. of the trauma team and the patient was brought to On arrival, the patient was brought to the emergency department and Dr. of the cardiothoracic surgery service was summoned to initially evaluate the patient. He subsequently then called me to the emergency department where we found the patient being resuscitated by Dr. in extremis. He was intubated, in shock with a blood pressure between 30-60 systolic. Bilateral chest tubes had been placed and were draining arterial blood. The patient was however responding to volume resuscitation and the blood pressure was able to be stabilized at a pressure between 60-90 systolic. The aortogram was reviewed by me and comparison shots of patient's previous chest x-ray, today's chest x-ray, previous aortogram, and today's aortogram were all available for review. The patient had very difficult anatomy to elucidate; however, it was clear that the transection of the aorta appeared to be in the midline. Dr. was consulted by telephone

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:

96

and the patient's findings were elucidated. It was agreed upon that the best way to approach this lesion was through a midline sternotomy with the patient on cardiopulmonary bypass with complete circulatory arrest. This plan was given to Dr. who agreed. We were able to speak briefly to the patient's nephew who had driven in from when he heard of the accident and transfer to Memorial Hospital and briefly I spoke with this gentleman and described the situation of Mr. in shock with probably a ruptured aorta due to the motor vehicle accident and that since he was able with continued volume replacement to maintain a blood pressure we would try to obtain control of the aorta and attempt a repair. I was never able to assess the patient's neurological status preoperatively as he was intubated, paralyzed, and sedated. The patient was then emergently transferred to the cardiovascular operating room.

NAME OF PROCEDURE

Repair of traumatic transverse aortic transection.

SURGEONS

M.D. (staff),
M.D. (assistant).

M.D. (assistant),

DESCRIPTION OF PROCEDURE

With the patient in the operating room, he was prepared and draped in the usual sterile fashion. A cutdown of the left femoral artery was performed and proximal and distal control of the left common femoral artery was obtained. A #20 arterial cannula was placed after the patient was adequately anticoagulated with 3 mg/kg of heparin given intravenously. Once the arterial cannula was in place, it was held by Rumel tourniquets and arterial perfusion could then be undertaken. A midline median sternotomy was then performed and the anterior mediastinum was entered. There was a large amount of hematoma present beneath the manubrium and a limited incision in the pericardium was made to expose the right atrial appendage. After a pursestring was placed about the base of the right atrial appendage, a Sarns two-stage venous cannula was placed into the right atrium and into the inferior vena cava to provide venous drainage. Cardiopulmonary bypass was commenced and the patient was immediately cooled. Very carefully the pericardium was then fully opened and reflected and the ascending aorta and the anatomy of the great vessels was started to be revealed. The innominate vein was transected between two 2-0 silk suture ligatures. Once the innominate vein was ligated and transected, the proximal transverse arch could be visualized. The lungs kept coming up into the mediastinal space and the pleural spaces were opened. It was also noted that the patient appeared to be exsanguinating from the left and right chest tubes as arterial blood was freely flowing from these and the Pleur-Evacs were overflowing. The chest tubes were then clamped,

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:

the pleural space was opened, and the pump suckers were placed into the pleural spaces to provide an attempt for red cell scavenging. It was obvious that the transection had let loose and that the mediastinal and visceral pleura was not containing the hematoma any longer. The patient was cooled to a systemic core temperature of 20°C and the cannula was placed into the superior vena cava retrograde to provide retrograde cold blood perfusion of the brain. This was begun without difficulty and then, with the patient's circulation turned off and drained, the heart was packed in ice and further dissection of the hematoma was performed. The right subclavian and carotid arteries were identified and distal to their takeoff, unfortunately behind the trachea and esophagus, the aorta divided posteriorly and this is where the transection had occurred. The patient seems to have some congenital anomaly with a double aortic arch with an atretic anterior segment. The posterior segment, however, was persistent and passed retrotracheal and retroesophageally. After thorough dissection of the area, it was noted that the distal end could be identified as well as the proximal tear and the aorta, which was enlarged and quite friable with a diameter of 4-5 cm, could be sutured. This was very tediously done as precisely as possible using a 3-0 Prolene pledgeted suture about the circumference of the tear. Care was taken to take as much buttress surrounding tissue to provide adequate stabilization of the repair. The ends of the aorta were brought together without difficulty or tension and the sutures were tied securely. The retrograde cerebral perfusion was stopped and the aorta was deaired with the patient in and systemic perfusion was restarted. There was reasonable hemostasis at the beginning as the patient was rewarmed; however, subsequently, it was noted that a tremendous amount of bleeding was begun through the left chest once again. The patient was then re-cooled again, the heart packed in ice as previously, and the repair was re-examined after the patient was brought back to 18°C and retrograde cerebral perfusion restarted. With the patient shut off once again, multiple 3-0 pledgeted sutures were placed about the circumference of the repair in order to provide adequate stabilization of the repair; however, the aorta was quite thin and friable and did not take sutures very well. In order to get even further exposure, a left third interspace anterior thoracotomy was performed and the chest opened on the left pleural side. The lung was retracted and the exposure retroesophageally was quite difficult and the repair area was able to be visualized; however, due to lack of any supporting stroma in this area, further repair and buttressing of the suture line was nearly impossible. Hemostasis was quite difficult to achieve. Once appropriate sutures were placed, the patient was subsequently deaired once again and systemic perfusion restarted and the cerebral perfusion stopped. With the patient now again rewarming, the heart came back quite nicely with a sinus rhythm. Once the patient reached normothermia, it appeared apparent that the patient had once again

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:

broken down the repair of the transverse aortic arch. There was difficulty at this point with venous return as it appeared that all the blood coming in through the femoral cannula was coming up into the transverse arch and exiting into the pleural spaces bilaterally. This was brought by pump suction back to the pump and there was essentially no systemic perfusion as the venous side of the patient was completely dry. With no flow on the venous side, the patient developed intractable acidosis and subsequently the heart could not be resuscitated and the patient was pronounced dead at 12:16 a.m. on 1996. The patient's family was present, a son and daughter as well as the nephew, and I informed them personally of the patient's passing. The medical examiner was also summonsed and the details of the motor vehicle accident and the patient's massive chest injuries described and after speaking with Dr. the covering county medical examiner, he felt that the coroner's autopsy was not necessary. The patient's chest was closed as well as the right groin closed and the cannulae removed. The patient was brought to the holding area at the family's request for immediate viewing and this was carried out. The corpse was then subsequently transferred to the morgue.

96

M.D.
Assistant Professor
Department of Surgery

DATE

D:
T:

HOSPITALS, INC.
RADIOLOGY REPORT / NUCLEAR MEDICINE

REPORT OF RADIOLOGIST

DATE OF REPORT:

PATIENT'S NAME:

HOSPITAL NUMBER:

DATE OF SERVICE:

STATUS: Emergency Dept

REFERRING PHYS:

CHEST, CERVICAL SPINE, AND PELVIS

COMMENTS: Radiographic exam performed on this 71-year-old male status post motor vehicle accident.

DESCRIPTION: A single view of the lateral cervical spine is presented, for interpretation. There is normal alignment of the cervical vertebrae with advanced degenerative changes from the level of C3 through C7 with disk space narrowing and anterior osteophyte formation. No acute fracture or subluxation is demonstrated. No gross soft tissue swelling is noted.

IMPRESSION: Advanced degenerative disk disease from C3 through C7 without acute radiographic findings.

CHEST

DESCRIPTION: A single portable chest projection is presented for interpretation. Marked widening of the mediastinum is noted with near complete opacification of the right lung field. The endotracheal tube is in place with good position above the carina. A nasogastric tube crosses the field with its distal portion extending past the diaphragm. The patient is on a backboard and the film is somewhat underpenetrated. No obvious fractures are demonstrated.

IMPRESSION:

1. Nasogastric tube and endotracheal tube in place.
2. Marked opacification of the right hemithorax which is consistent with a large effusion and atelectasis. Recommend complete PA and lateral chest when clinically indicated.
3. The left lung field is not fully expanded with opacification noted at the superior lung field margin.

PELVIS

DESCRIPTION: A single AP projection of the pelvis was present with the patient on a spine board. No fracture, dislocation, or diastasis is

PX1

PATIENT'S NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:
STATUS: Emergency Dept
REFERRING PHYS:

demonstrated. No soft tissue swelling is noted. Stool and gas is noted within the rectum.

IMPRESSION: No acute radiographic abnormalities demonstrated.

M.D.

Date

I have personally reviewed this study and agree with the findings.

M.D.

Date

D:
T:

HOSPITALS, INC.
RADIOLOGY REPORT / NUCLEAR MEDICINE

REPORT OF RADIOLOGIST

DATE OF REPORT:

PATIENT'S NAME:

HOSPITAL NUMBER:

DATE OF SERVICE:

STATUS: Emergency Dept

REFERRING PHYS:

PORTABLE CHEST AT 2046 HOURS

COMMENTS: Chest exam on this 71-year-old male status post motor vehicle accident for tube placement.

DESCRIPTION: A single portable projection of the chest is presented for interpretation which is a limited exam secondary to underpenetration and the patient is on a backboard. The endotracheal tube is in good position with a nasogastric tube extending past the level of the diaphragm. Two chest tubes are noted with their tips at the bilateral lung apices. Slight increased expansion of the left lung field is demonstrated. Persistent widening of the mediastinum is demonstrated.

IMPRESSION: Chest tube tips in region of the lung apices bilaterally with endotracheal tube and nasogastric tubes in place. Widening of the mediastinum persists and injury to the great vessels cannot be excluded by this presentation. Recommend further evaluation if clinically indicated.

M.D.

Date

I have personally reviewed this study and agree with the findings.

M.D.

Date

D:
T:

PX2

HOSPITALS

STAFF NOTES

Date

Service

STR H+P

72 yo. s/p MVA ~~head-on~~ ? ~~retrograde~~, ? ~~ETOH~~,
walking on street & collapsed.

Dissecting ascending aorta aneurysm. Transposed &
ascending aorta aneurysm. Transposed &
arterogram showed

Referral Doc:

ETA: 7:15 p. BP 60 / 20

arrives

Pt. ~~transfers~~ on BS, intubated IV + blood (300 cc in) 3' ^{arterial} in blood.

NGT. Pt unresponsive. Femoral art line on (R); DAC line

Initially BS (B), BP ↓.

Hr 87 BP 60 → 84 / 40

Head (L) ^{reactive} ~~over~~ ^{lesion} ~~eyes~~

Pupils 2+ + reactive. ^{depression} ~~lesion~~ over head

Neck (JVD),

Chest (B) ^{initially} BS initially, contusion, (L) chest ^{depression} ~~reflexes~~;

Heart RA ? (M)

Abd. initially soft & ^{BS} ~~BS~~, ^{scapula} ~~appearance~~.

Pelvis ? ^{to} ~~compression~~ ↑

Rectal Exam (+) ^{normal} ~~prostate~~ ^{poor} ~~tone~~ ^{near} ~~solitary~~ ^{bone}

Ext. -- initially ^{obvious} ~~bone~~ ^{deformities} ~~deformities~~ ^{lacerations} ~~of~~ ^{bones} ~~of~~ ^{bones}

2/3

Date	Service	
		Back → seen
	lower extremities	Lo's obvious deformities of lower
		PRBC in ?'s
		Pt's BP ↓, has fracture vns (L) & R
		(R) SC placed
		CXR's bleed in chest (L), (R)
		tubes placed
		CHEST tubes placed (R) bleed (R) & (L)
		↓ sxx.
		Pt intubated spontaneously, got foggy.
		Repeat CXR = ↑ hemothorax hemothorax
		LAT C-spine - ?
		abd/pelvis - ?
		Abdomen become more firm + distended; still likely distended;
		bleed ↑ (R) chest tube; BP ↓.
		Pt moved to DR emergency for CT scan.
		Labs
		WBC 7.437 / 26.2 / 17.3 / 17.8 / 4.1 on 1002 F532
		PT = 14.5 aPTT = 31 Gmox = 270
		PTT = 24.5 CRP = 341 Fibrinogen = 158
		10.2 > 12.7 < 172 132 103 11 <
		36.8 4.1 15 0.9
		(P/ECH)
		U/A = 1.005
		↓ bleed
		+ + C 12 = 0 ⊕ small lym

HOSPITALS

STAFF NOTES

Date Service

A/P - ① 72yo. s/p Hemo - on MVA DeOH;

② CT, find abd. c ↓ BP

emergent OR (CT) + ex leg.

② admit STR / sign

1044

HOSPITALS

STAFF NOTES

Date

Service

Anesthesia Pu Op

This 71 year old male had an MVA
hit another car. Male got out & car was
fully America collapsed^{collapsed} - taken to
JMC intubated at 0000 - Life Project
to WU.

E.H. received 4-0 suture C-nef.

BP 70/p. HR ^{Heart Rate} 120. 100% sat

Intubated .. f.o. 100% O₂

Lines ²⁺ left femoral arterial line

Left femoral tissue cord

Left subclav. f.o. femoral cord

3 peripheral lines 14, 16, 18 gauge

Due to the Emergency nature of this case
neurologist not present.

was unable to discuss? family members
was unable to discuss family members

CT Surgeon on scene took pt to the
to Room 16. C-P. by Dr. Neely

HOSPITALS

STAFF NOTES

Date

Service

CT3 STAFF preop

71 year old ~ 4-5 hrs post H/O MVA IN

Area, transferred to Ruby remains in shock

i diagnosis of traumatic aortic transection. The

patient arrived ~ 7:15 pm in ED. to trauma team

where they began / continued resuscitation. CT surgery

was then consulted due to medical restrictions and

to review angiogram of aorta done at an outside

hospital. The angiogram did demonstrate an

enlarged ectatic aorta with fusiform 4-5 cm

dilatation throughout. had 4 arch vessels and

right arch. Transection evident in transverse arch

in the midline and AFTER consultation with

Dr and Dr we elected to

proceed with a median sternotomy approach. The

patient was in shock upon arrival to O.R. i

bilateral chest tubes actively draining blood requiring

massive volume and blood resuscitation. A nephew

was here and he was informed of situation, need for

urgent intervention and he agreed with our plans

to proceed to the O.R. immediately

Hospitals

0000 CTS STAFF Death note

Despite maximum resuscitative efforts
The aortic injury could not be controlled ^{and}
The patient was pronounced dead .C 0016 hrs
Family informed by me M.E. notified -
he did not wish to pursue post mortem exam

Hospital	
Staff Notes	
CVT OP NOTE	
PRE-OP DX	TRAUMATIC TRANSECTION AORTIC ARCH, (TRANSVERSE)
POST-OP NOTE	² SAME
PROCEDURE	Repair TRAUMATIC TRANSVERSE AORTIC ARCH TRANSECTION
ATTENDING SURGEON	VDSICARIS
SURGEONS	
ANESTHESIA	GETA
SPECIMEN	+
CULTURE	+
DRAINS	+
IMPLANTS	+
FINDINGS	<p>Right sided aortic arch which passed posteriorly to trachea. Deceleration injury caused aorta to tear placed on CPB via (R) atrium / (L) FEM A. cooled down to 18° C. Aortic repair x 2, but sutures would not hold. Patient presented in shock in OR & exsanguinated. He expired 12/16/06 HRS</p> <p>Family notified by me. The medical examiner was notified thereafter as was county who said that autopsy was not required.</p>

NAME:
HOSP NO:
AGE: 71Y SEX: M

LOC: ED ROOM: ,
DR. DR. UNKNOWN
DR. CODE:

===== PHYSICIAN COPY FOR

=====

***** MISCELLANEOUS DRUG ASSAYS *****

TEST: ETHANOL
SERUM
UNITS: mg/dL
LO-HI:

1934 NONE DETECTED

***** URINE DRUG SCREEN *****

1934 UR DRUG SCREEN LTD.

AMPHETAMINE, URINE
NEGATIVE [NEG]
BARBITURATE, URINE
NEGATIVE [NEG]
BENZODIAZEPINE, URINE
NEGATIVE [NEG]
CANNABANOID, URINE
NEGATIVE [NEG]
COCAINE METAB. URINE
NEGATIVE [NEG]
OPIATE, URINE *POSITIVE [NEG]
PROPOXYPHENE, URINE
NEGATIVE [NEG]

RESULT VERIFIED BY DUPLICATE TEST. POSITIVE RESULTS ARE UNCONFIRMED
AND SHOULD BE CONSIDERED PRESUMPTIVE ONLY. REQUEST CONFIRMATION IF
INDICATED.

***** ROUTINE BLOOD BANK *****

TEST: ABO/RH(D) ANTIBODY UNITS SPECIMEN
SCREEN ORDERED EXPIRATION
DATE

LO-HI:

1934 O POSITIVE NEGATIVE 34

NAME:
HOSP NO:
AGE: 71Y SEX: M

LOC: ED ROOM:
DR. DR. UNKNOWN
DR. CODE:

===== PHYSICIAN COPY FOR

=====

***** RED CELL PRODUCTS ISSUED *****

	Component	ABO/Rh	Unit Number	Volume	Comment
2042	PC-ADSOL	O NEG	27FN42143	300	
	PC-ADSOL	O POS	27GC27829	300	
	PC-ADSOL	O POS	27GC27836	300	
	PC-ADSOL	O POS	27GC27842	300	
	PC-ADSOL	O POS	27GC27873	300	
	PC-ADSOL	O POS	27GC27883	300	
	PC-ADSOL	O POS	27GC27887	300	
	PC-ADSOL	O POS	27GC27888	300	
	PC-ADSOL	O POS	27GC27896	300	
	PC-ADSOL	O POS	27GC27906	300	
	PC-ADSOL	O POS	27GC27924	300	
	PC-ADSOL	O POS	27GC27942	300	
	PC-ADSOL	O POS	27GC27968	300	
	PC-ADSOL	O POS	27GC27970	300	
	PC-ADSOL	O POS	27GP43320	300	
	PC-ADSOL	O NEG	27M43027	300	
2108	PC-ADSOL	O POS	27GC27885	300	
	PC-ADSOL	O POS	27GC27937	300	
	PC-ADSOL	O POS	27GC27961	300	
	PC-ADSOL	O POS	27GC27963	300	
	PC-ADSOL	O POS	27GC27966	300	
	PC-ADSOL	O POS	27GC27973	300	
2126	PC-ADSOL	O POS	27GC27870	300	
	PC-ADSOL	O POS	27GC28218	300	
	PC-ADSOL	O POS	27GP43427	300	
	PC-ADSOL	O POS	27V51028	300	

***** BLOOD PRODUCTS CROSSMATCHED NOT TRANSFUSED *****

	Component	ABO/Rh	Unit Number	Volume	Comment
96					
934	PC-ADSOL	O POS	27FV25517	300	
	PC-ADSOL	O POS	27GC27880	300	
	PC-ADSOL	O POS	27GC28190	300	
	PC-ADSOL	O POS	27GC28207	300	
	PC-ADSOL	O POS	27GC28217	300	
	PC-ADSOL	O POS	27GC28221	300	
	PC-ADSOL	O POS	27GC28230	300	
	PC-ADSOL	O POS	27GP43441	300	

BEST AVAILABLE

NAME:
HOSP NO:
AGE: 71Y SEX: M

LOC: ED ROOM:
DR. DR. UNKNOWN
DR. CODE:

===== PHYSICIAN COPY FOR =====

***** RESPIRATORY CARE: ROUTINE BLOOD GASES *****

TEST:	SPECIMEN TYPE	PH	PCO2	PO2	HCO3	BASE DEFICIT	FIO2
UNITS:			mmHg	mmHg	mmol/L	mmol/L	%
LO-HI:		7.350-7.450	36.2-46.2	72-100	20.0-29.0	0.0-3.0	21-100
	R1934 ARTERIAL	7.437	26.2*	173*	17.8*	4.1*	100

OUTPATIENT MEDICAL RECORDS COPY

END OF REPORT
PAGE 5

LR 1 (Continued)

HOSPITALS
M.D. - DIRECTOR
CLINICAL LABORATORIES

NAME:
HOSP NO.:
AGE: 71Y SEX: M

LOC: ED
DR. DR. UNKNOWN
DR. CODE:

===== PHYSICIAN COPY FOR DR: SCOTT, MARY BETH (B0026) =====

***** RESPIRATORY CARE: ROUTINE BLOOD GASES *****

TEST:	SPECIMEN TYPE	PH	PCO2	PO2	HCO3	BASE DEFICIT	FIO2
UNITS:			mmHg	mmHg	mmol/L	mmol/L	%
LO-HI:		7.350-7.450	36.2-46.2	72-100	20.0-29.0	0.0-3.0	21-100
R2047	ARTERIAL	7.102*	46.7*	96	14.7*	13.2*	100

----- RESPIRATORY CARE: ROUTINE BLOOD GASES -----

TEST:	WHOLE BLOOD POTASSIUM	WHOLE BLOOD IONIZED CALCIUM
UNITS:	mmol/L	mmol/L
LO-HI:	3.5-5.0	1.30-1.46
R2047	4.6	0.48*

***** RESPIRATORY CARE: TEMPERATURE COMPENSATED VALUES *****

TEST:	PO2	PH	PCO2	PATIENT TEMP
UNITS:	mmHg		mmHg	C
LO-HI:	72-100	7.350-7.450	36.2-46.2	15.0-40.0
R2047	74	7.153*	39.2	33.0

***** RESPIRATORY CARE: COOXIMETER PANEL *****

TEST:	O2-HB	CO-HB	MET-HB	TOT-HB	O2 CONTENT
UNITS:	%	%	%	g/dL	%
LO-HI:	85.0-98.0	0.0-2.5	0.0-3.0	14.0-18.0	17.6-24.3
R2047	97.5	0.7	0.2	7.1*	9.6*

DATE

OUTPATIENT MEDICAL RECORDS COPY

END OF REPORT
PAGE 1

LR 2

HOSPITALS
M.D. - DIRECTOR
CLINICAL LABORATORIES

NAME:
HOSP NO.:
AGE: 71Y SEX: M

LOC: ED
DR. DR. UNKNOWN
DR. CODE:

===== PHYSICIAN COPY FOR DR: =====

***** RESPIRATORY CARE: ROUTINE BLOOD GASES *****

TEST:	SPECIMEN TYPE	PH	PCO2	PO2	HCO3	BASE DEFICIT	FIO2
UNITS:			mmHg	mmHg	mmol/L	mmol/L	%
LO-HI:		7.350-7.450	36.2-46.2	72-100	20.0-29.0	0.0-3.0	21-100
	R2214 VENOUS	7.052*	42.2	23*	11.8*	16.1*	40
	R2216 ARTERIAL	7.571*	13.8*	202*	12.8*	7.3*	40

----- RESPIRATORY CARE: ROUTINE BLOOD GASES -----

TEST:	WHOLE BLOOD POTASSIUM	WHOLE BLOOD IONIZED CALCIUM
UNITS:	mmol/L	mmol/L
LO-HI:	3.5-5.0	1.30-1.46
	R2214 3.6	0.59*
	R2216 4.4	0.59*

***** RESPIRATORY CARE: TEMPERATURE COMPENSATED VALUES *****

TEST:	PO2	PH	PCO2	PATIENT TEMP
UNITS:	mmHg		mmHg	C
LO-HI:	72-100	7.350-7.450	36.2-46.2	15.0-40.0
	R2214 14*	7.139*	31.0*	30.0
	R2216 164*	7.681*	10.1*	30.0

***** RESPIRATORY CARE: COOXIMETER PANEL *****

TEST:	O2-HB	CO-HB	MET-HB	TOT-HB	O2 CONTENT%
UNITS:	%	%	%	g/dL	%
LO-HI:	85.0-98.0	0.0-2.5	0.0-3.0	14.0-18.0	17.6-24.3
	R2214 46.8	1.3	0.0	5.1*	3.3*
	R2216 97.4	2.5	0.2	7.3*	9.9*

DATE

OUTPATIENT MEDICAL RECORDS COPY

END OF REPORT
PAGE 1

LR 3

HOSPITALS
M.D. - DIRECTOR
CLINICAL LABORATORIES

NAME:
HOSP NO.:
AGE: 71Y SEX: M

LOC: ED
DR. DR. UNKNOWN
DR. CODE:

===== PHYSICIAN COPY FOR DR: VASILAKIS, ALEXANDER (B0129) =====

***** RESPIRATORY CARE: ROUTINE BLOOD GASES *****

TEST:	SPECIMEN TYPE	PH	PCO2	PO2	HCO3	BASE DEFICIT	FIO2
UNITS:			mmHg	mmHg	mmol/L	mmol/L	%
LO-HI:		7.350-7.450	36.2-46.2	72-100	20.0-29.0	0.0-3.0	21-100
R2110	ARTERIAL	7.089*	53.1*	301*	16.2*	12.2*	40
R2111	VENOUS	6.994*	62.3*	43	15.3*	14.5*	40
2315	VENOUS	7.433	26.5*	273*	17.9*	5.1*	40
2315	VENOUS	7.160*	49.0	40	17.6*	9.3*	40

----- RESPIRATORY CARE: ROUTINE BLOOD GASES -----

TEST:	WHOLE BLOOD POTASSIUM	WHOLE BLOOD IONIZED CALCIUM
UNITS:	mmol/L	mmol/L
LO-HI:	3.5-5.0	1.30-1.46
R2110	6.7*	1.24*
R2111	5.7*	1.14*
2315	3.8	0.54*
2315	3.8	0.56*

***** RESPIRATORY CARE: TEMPERATURE COMPENSATED VALUES *****

TEST:	PO2	PH	PCO2	PATIENT TEMP
UNITS:	mmHg		mmHg	C
LO-HI:	72-100	7.350-7.450	36.2-46.2	15.0-40.0
R2110	240*	7.249*	30.6*	24.4
R2111	18*	7.146*	35.9*	24.4
2315	220*	7.597*	16.4*	26.0
2315	18*	7.304*	30.3*	26.0

DATE

OUTPATIENT MEDICAL RECORDS COPY

CONTINUED
PAGE 1

LR4

Appendix B:

SELECTED PHOTOGRAPHS

A total of sixteen color copies of photographs are presented and referenced as Photograph **#01** through Photograph **#16**. All of these photographs were provided by the West Virginia State Police.



01: On scene view of Vehicle #2's northward travel path in left curve portion of "S" curve (see photo #02) from approximately 30 meters (98 feet) south of impact



02: On scene view of Case Vehicle's southward travel path in right curve portion of "S" curve from ~ 15 meters (49 feet) north of impact--both vehicles at final rest



03: On scene view of Case Vehicle's final rest position, heading west, perpendicular to southbound lane in right curve, from ~ 8 meters (26 feet) north of impact



04: On scene southward view of Case Vehicle and Vehicle #2 at final rest; NOTE: clockwise rotation after impact and Vehicle #2's approach path (cells H4-H5)



05: On scene eastward view of Case Vehicle at final rest showing front right damage and rightward front end shift; NOTE: CURVE WARNING sign in background



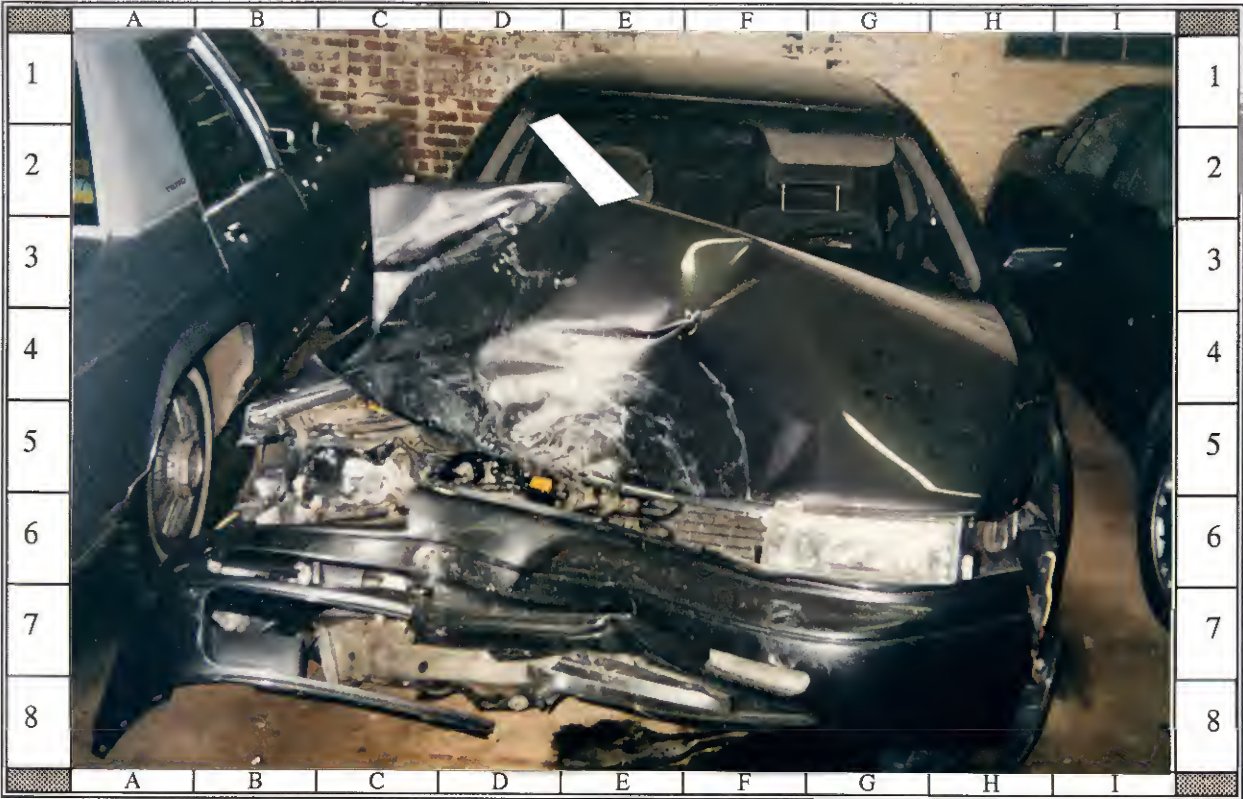
06: On scene westward view of Case Vehicle at final rest showing undamaged back; NOTE: the right front door appears to have sustained induced damage



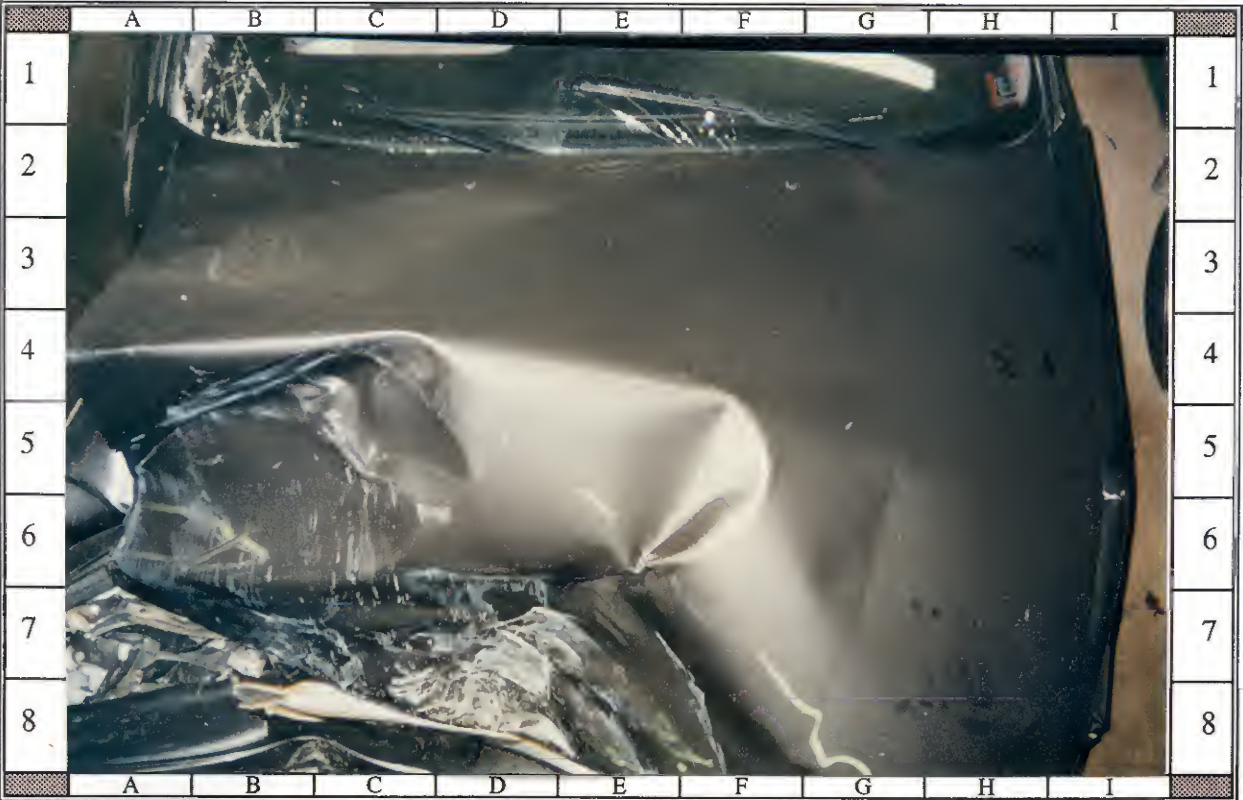
07: On scene westward view of Vehicle #2 at final rest (heading northeast) showing severe frontal damage, roof buckling, and induced damage to right front door



08: On scene northeastward view of Vehicle #2 at final rest showing undamaged back; NOTE: Case Vehicle in background and CURVE WARNING sign



09: Case Vehicle's direct frontal damage showing offset nature of impact to vehicle's front right half; NOTE: two-point motorized shoulder belt is connected to track



10: Vertical close-up of Case Vehicle's direct frontal damage; NOTE: induced impact damage to base of windshield at center and right side



11: Reference line view of Case Vehicle's left side from front showing induced damage to left fender, rightward end shift, and adjustable driver's head restraint



12: 1990 Geo Prizm's severe frontal damaged viewed from bumper line perspective;
NOTE: maximum crush is at C₆ and adjustable front head restraints



13: Overhead view of Vehicle #2's frontal crush profile showing rightward offset nature of vehicle's impact and maximum crush at C₆



14: Front vertical view of induced damage to right side of Vehicle #2's roof; NOTE: induced damage to windshield and front bucket seats



15: Vehicle #2's frontal crush viewed from left showing slanted front bumper and induced damage to hood, left fender, and windshield



16: Vehicle #2's frontal crush viewed from right showing offset nature of crush profile, direct damage right fender, and induced damage to hood and windshield